

CESSNA AIRCRAFT COMPANY

Wichita, Kansas



THIS CATALOG SUPERSEDES

ALL

190 & 195 CATALOGS

 **November 1954**

Price \$3.00

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FOREWORD

This illustrated Parts Catalog has been prepared to aid you in easily and quickly identifying parts of the Cessna 190 Series airplanes. To simplify the organization of the parts listings, the catalog has been divided into two sections. The first section contains all of the major assemblies, sub-assemblies, and parts of a standard equipped airplane. The second section consists of the Optional Equipment offered by Cessna for the 190 and 195 series.

INDEXES

This catalog features an index system consisting of:

1. An Alphabetical Index located in the front of the catalog.
2. A Pictorial Index, provided in Figure 1. - Airplane Assembly.
3. A Numerical Index located in the back of the catalog.

VENDORS NUMBERS

The use of vendor's numbers have been discontinued wherever possible. In their place, Cessna numbers have been assigned. This change has been made for the convenience and protection of all concerned. Vendor's occasionally change their numbers or re-design their parts. When this happens, the vendor's numbers shown in the catalog are obsolete. This causes confusion and delay in fitting your order. However, if the part is ordered under a Cessna part number, the correct part is shipped regardless of any change of the vendor's number.

STANDARD PARTS

For standard hardware items such as Tinnerman nuts, clamps, etc., "AN" and "NAS" numbers have been used. The vendor's numbers are also used to aid you in identifying the correct parts.

SERIAL LISTINGS

When a part is not used on all airplanes covered by this catalog, the serials of the airplanes, for which it is applicable, will be noted after the nomenclature of the part.

NON-INTERCHANGEABLE PARTS. When the new and old style parts are not interchangeable, the applicable airplane serials for both parts will be listed and care should be exercised to be sure you are ordering the correct parts for a specific airplane.

INTERCHANGEABLE PARTS. When the new style part is completely interchangeable with the old style part, both parts will be serialized, and the notation ("When exhausted use ") will be entered immediately following the serial listing of the old part. This means that the old style part should be used on the airplanes to which they apply until the supply of these parts have been exhausted - after which time, the new style parts should be used. This is done to simplify the stocking of parts by our distributors and dealers. The old style part is just as good, physically and functionally, as the new style part - the only difference being that the new style part can be used on more than one block of airplane serials.

SYMBOLS

NHA - The symbol "N.H.A." is an abbreviation for "Next Higher Assembly."

REF: - The use of "Ref." in the "Units per assembly column" denotes an item that is entered for reference purposes only. This item is a part of some assembly or sub-assembly listed elsewhere in the catalog. In each case, the figure listing the requirements of this item is shown in parenthesis immediately following the nomenclature.

AR - The symbol "A.R." (as required) is used to indicate bulk quantity where an indefinite amount is used.

HOW TO ORDER

USE YOUR CATALOG TO ORDER PARTS. Use Parts and Accessories order form Number 807 or 808, which will be supplied by CESSNA on request. Give complete information on addresses and make sure that part number and part name are as shown in the catalog. Be sure to state quantities.

Be sure to specify how the order is to be shipped, otherwise it will be sent out in the manner that seems best to the shipper. Be sure to indicate model and serial number of the airplane. Serial number is very important to properly identify parts used on each airplane. Where color is involved, be sure to specify what color.

Factory hours are 7:30 A.M. to 4:00 P.M. Monday through Friday. All orders will be processed promptly within the above hours and in most cases will be shipped on the day received or on the following working day.

DISTRIBUTOR ORDERS

Distributors will send all orders to the factory with instructions as to the shipping destination. The factory prefers not to make C.O.D. shipments for the distributor and all billing will be made to the distributor in the case of direct shipments.

DEALER ORDERS

Dealers will place all of their parts order requirements with their distributor. The factory will not honor orders received directly from a dealer. It will be necessary for us to forward it to the distributor for his action. Therefore, dealer orders sent direct to the distributor will result in much faster delivery on any parts that are required.

RETAIL ORDERS

Retail orders will not be honored by the factory. They are to be placed with the dealer or distributor in the owner's territory and when received directly by the factory will be forwarded to the distributor from whose territory it was received. Considerable saving in time will again result to the owner if his orders are placed with his dealer or distributor.

Cessna Aircraft Company reserves the right to cancel, add, or change the parts and assemblies described in this catalog without notice.

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STANDARD PAINT COMBINATIONS MODELS 190 - 195

YEAR	COLOR			
	EXTERIOR	INTERIOR	CONTROL COLUMN & STA. PANEL CENTER	LANDING GEAR SPRING
1947 THRU 1949	Cessna Blue	Cessna Cessco Blue	Cessna Deep Sea Blue	#9544 Synthetic Gull Gray Enamel
1949 & 1950	Cessna Blue	Cessna Cessco Blue	Cessna Blue Spruce	#9544 Synthetic Gull Gray Enamel
1951 THRU 1953	Serge Blue	Lima Tan	Serge Blue	#9544 Synthetic Gull Gray Enamel
1947 THRU 1953	Insignia Red	Cessna San	Dark India	#9544 Synthetic Gull Gray Enamel
1951 THRU 1953	Insignia Red	Lima Tan	Matador Red	#9544 Synthetic Gull Gray Enamel
1948 THRU 1950	Cessna Metallic Green	Cessna Blue Green	Cessna Blue Spruce	#9544 Synthetic Gull Gray Enamel
1954	Dark Metallic Red Gloss Black (Trim)	Trooper Tan	Bahama Blue	#9544 Synthetic Gull Gray Enamel
1954	Light Yellow Gloss Black (Trim)	Trooper Tan	Crystal Green	#9544 Synthetic Gull Gray Enamel

PLEASE SPECIFY AIRPLANE SERIAL NUMBER ON ORDER

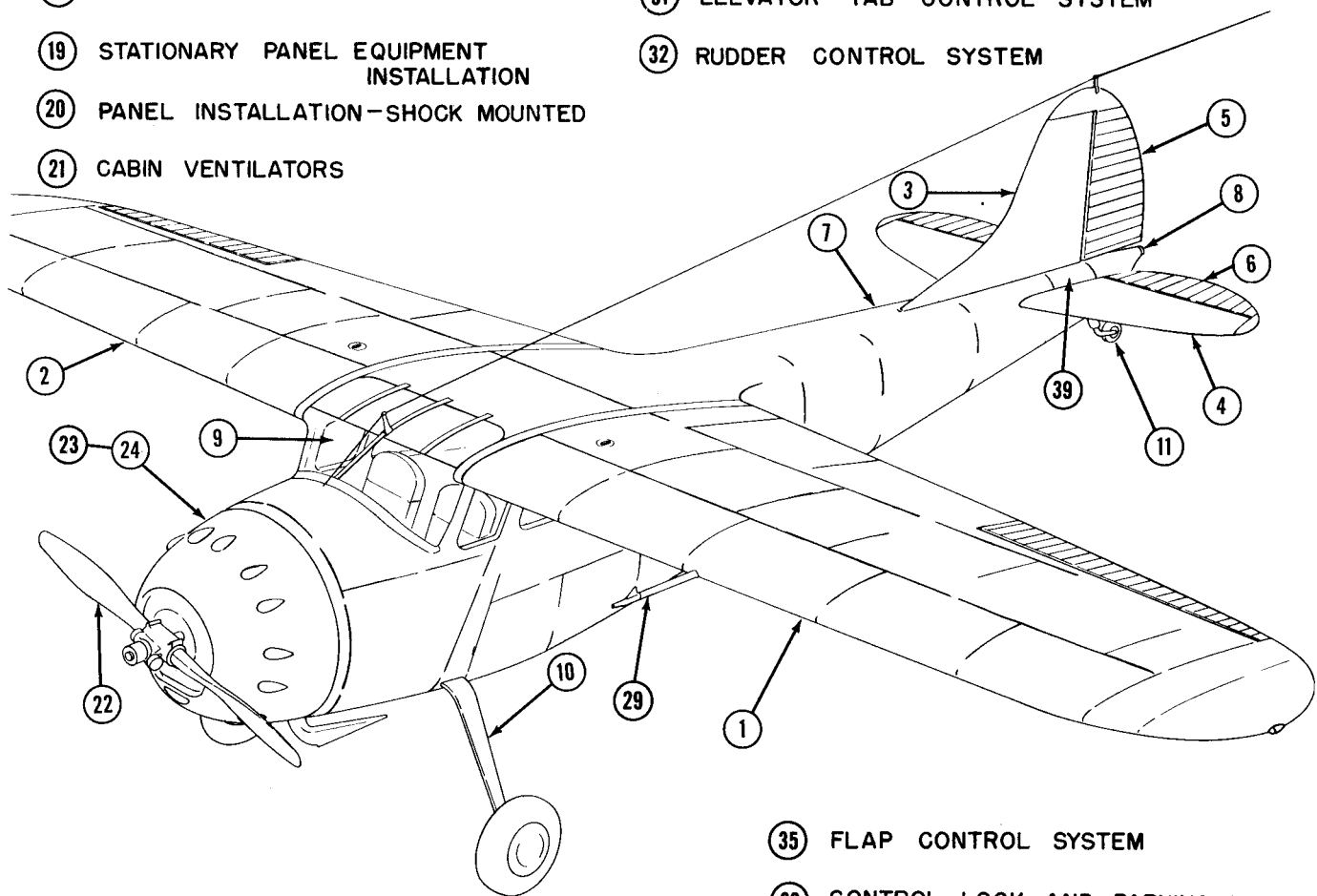
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STANDARD EQUIPMENT SECTION



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|---|----------------------------------|
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| (13) BRAKE LINES INSTALLATION | (26) FUEL SYSTEM |
| (14) UPHOLSTERY INSTALLATION | (27) OIL SYSTEM |
| (15) BAGGAGE DOOR ASSEMBLY | (28) CONTROL COLUMN |
| (16) CABIN DOOR ASSEMBLY | (29) PITOT SYSTEM |
| (17) PILOT AND CO-PILOT'S SEAT | (30) ELEVATOR CONTROL SYSTEM |
| (18) REAR SEAT ASSEMBLY | (31) ELEVATOR TAB CONTROL SYSTEM |
| (19) STATIONARY PANEL EQUIPMENT
INSTALLATION | (32) RUDDER CONTROL SYSTEM |
| (20) PANEL INSTALLATION-SHOCK MOUNTED | |
| (21) CABIN VENTILATORS | |



- | | |
|---------------------------------|-------------------------------------|
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| (34) AILERON CONTROL SYSTEM | (36) CONTROL LOCK AND PARKING BRAKE |
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FIGURE I-AIRPLANE ASSEMBLY

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FIGURE 1

AIRPLANE ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0300001	Airplane Assembly (Reference only)	Ref	Ref
1-1	See figure 2	Wing Assembly - Left	1	1
-2	See figure 8	Wing Assembly - Right	1	1
-3	See figure 15	Fln Assembly	1	1
-4	See figure 16	Stabilizer Assembly	1	1
-5	See figure 17	Rudder Assembly	1	1
-6	See figure 18	Elevator Assembly	1	1
-7	See figure 19	Fuselage Assembly	1	1
-8	See figure 25	Stinger Assembly	1	1
-9	See figure 26	Windshield Installation	1	1
-10	See figure 27	Landing Gear Installation	1	1
	See figure 28	Landing Gear Installation - Crosswind	1	1
-11	See figure 30	Tail Gear Installation	1	1
-12	See figure 32	Brake And Rudder Pedal Installation	1	1
-13	See figure 36	Brake Lines Installation	1	1
-14	See figure 37	Upholstery Installation	1	1
-15	See figure 38	Baggage Door Assembly	1	1
-16	See figure 39	Cabin Door Assembly	1	1
-17	See figure 40	Pilot and Co-pilot's seat	1	1
-18	See figure 41	Rear Seat Assembly	1	1
-19	See figure 42	Stationary Panel Equipment Installation	1	1
-20	See figure 43	Panel Installation - Shock mounted	1	1
-21	See figure 46	Cabin Ventilators	1	1
-22	See figure 47	Propeller Installation	1	1
-23	See figure 48	Engine Installation - Jacobs	1	1
-24	See figure 56	Cowl Installation - Jacobs engine	1	1
	See figure 57	Engine Installation - Continental	1	1
	See figure 63	Cowl Installation - Continental engine	1	1
-25	See figure 64	Cabin Heater installation	1	1
-26	See figure 66	Fuel System	1	1
-27	See figure 67	Oil System	1	1
-28	See figure 68	Control Column	1	1
-29	See figure 69	Pitot System	1	1
-30	See figure 70	Elevator Control System	1	1
-31	See figure 71	Elevator Tab Control System	1	1
-32	See figure 72	Rudder Control System	1	1
-33	See figure 73	Rudder Trim Control System	1	1
-34	See figure 74	Aileron Control System	1	1
-35	See figure 75	Flap Control System	1	1
-36	See figure 76	Control Lock And Parking Brake	1	1
-37	See figure 77	Fuselage Electric Wiring	1	1
-38	See figure 78	Electrical Wiring Diagram	1	1
-39	0330008	Fairing Assembly - Left	1	1
	0330005-3	Fairing Assembly - Left (Serials 16084 & on) (A195)	1	1
	0330008-1	Fairing Assembly - Right	1	1
	0330008-4	Fairing Assembly - Right (Serials 16084 & on) (A195)	1	1
	0330006	Former - Fairing	1	1
	PK76XZ-8-6	Screw - (Attach fairing)	1	1
	NAS395-17-3	Nut - (Attach fairing)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

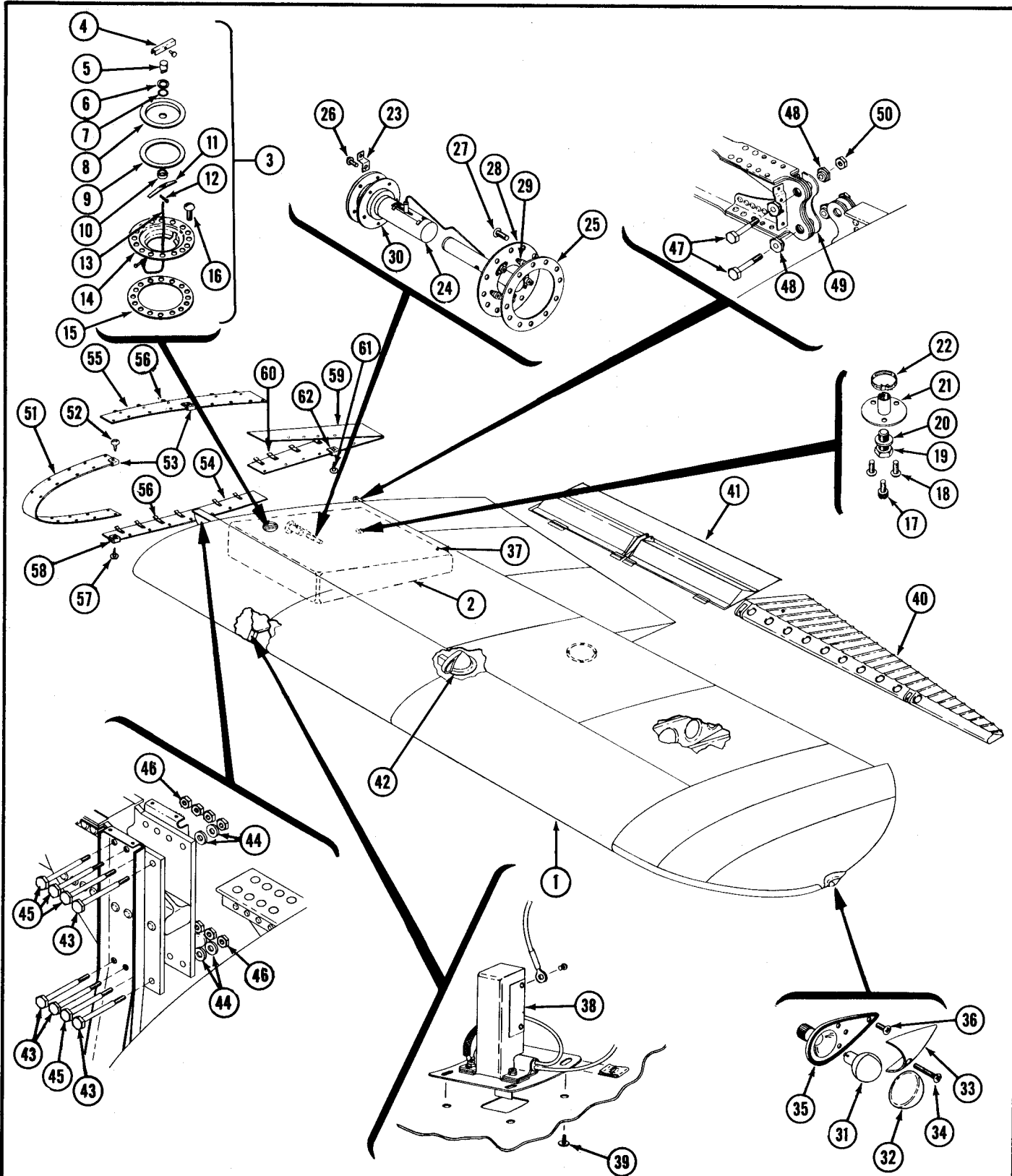


FIGURE 2—WING ASSEMBLY COMPLETE—LEFT

ILLUSTRATED PARTS CATALOG

FIGURE 2

WING ASSEMBLY - COMPLETE LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
2-	0320000	Wing Assembly - Complete left (see figure 1 for NHA)(ser 7003 thru 16083)	Ref	Ref
-1	0320000-20	Structure Assembly - Left wing (figure 3 breakdown)(ser 7003 thru 16083)(When exhausted use 0320000-60)	1	1
	0320000-5	Wing Assembly - Complete left (see figure 1 for NHA)(ser 16084 & on)		1
	0320000-60	Structure Assembly - Left wing (figure 3 breakdown)(ser 16084 & on)		1
-2	0322539	Tank - Left wing fuel	1	1
	0322532-1	Cap Assembly - Fuel cell filler	1	1
-3	0322532-4	Cap Assembly	1	1
-4	0322533	Handle - Fuel tank cap	1	1
-5	0322534	Pin - Fuel tank cap handle	1	1
-6	NAS143-8C	Washer	1	1
-7	AN6227-10	"O" Ring	1	1
-8	0322536	Cap - Fuel tank	1	1
-9	0322551	Gasket - Fuel tank cap	1	1
-10	NAS43DD-8-8	Spacer	1	1
-11	0322548	Spring - Fuel tank cap lock	1	1
-12	AN380-4-2	Pin - Cotter	1	1
-13	0322532-3	Chain - Filler cap	1	1
-14	0322532-5	Cap Assembly - Fuel cell filler	1	1
-15	0320000-3	Gasket - Cap mounting	1	1
-16	AN525-416R6	Screw - (Attach cap plates to fuel tank)	16	16
-17	AN500A8-7	Screw - (Attach safety for drain plug)	1	1
-18	AN526-832-R7	Screw - (Attach fuel tank drain)	2	2
-19	0320105	Plug & Bleeder - Fuel tank drain	1	1
-20	AN902-5	Gasket - Fuel tank drain	1	1
-21	0322526	Adapter - Fuel tank drain	1	1
-22	NAS397-16	Clamp - (Tinnerman A3122-16-59)	1	1
-23	0413247-1	Strap - Fuel tank ground	1	1
-24	0311022	Liquidometer - Fuel tank unit	1	1
-25	0320000-2	Gasket - Liquidometer	1	1
-26	AN520-1032R10	Screw - (Attach liquidometer to adapter plate)	5	5
-27	AN526-428R8	Screw - (Attach adapter plate)	12	12
-28	0322546	Adapter Assembly - Fuel tank liquidometer	1	1
-29	22NAI-02	Nutplate	5	5
-30	0322541	Gasket - Rubber	2	2
	0423006-1	Light Assembly - Wing position left	1	1
-31	0423006-6	Bulb - Wing position light	1	1
-32	0423006-2	Lens - Wing position light (red)	1	1
-33	0423006-5	Fairing - Wing position light	1	1
-34	PK148-632-10	Screw - (Attach fairing to lamp base)	1	1
-35	0423006-7	Gasket - Wing position light	1	1
-36	PK76XZ-6-4	Screw - (Attach light assembly to wing tip)	3	3
-37	48152	Plug Button	1	1
-38	0511062-5	Wing Unit - Stall warning actuator	1	1
-39	PK76XZ-8-6	Screw - (Attach wing unit)	4	4
-40	0324000	Aileron Assembly - Left (see figure 7 for breakdown)	1	1
-41	0325000	Flap Assembly - Left (see figure 14 for breakdown)(ser 7003 thru 16083)	1	1
	0325001-1	Flap Assembly - Left (see figure 14 for breakdown)(ser 16084 & on)		1
-42	0322006	Light - Landing (see figure 3 for breakdown)	1	1
-43	0300001-7	Bolt - (Attach front spar to fuselage)	4	4
-44	AN960-C716	Washer	4	4
-45	0300001-8	Bolt - (Attach front spar to fuselage)	4	4
-46	AN365-624	Nut	8	8
-47	NAS147-31	Bolt - (Attach rear spar to fuselage)	2	2
-48	0322717	Bushing - Wing attachment rear	4	4
-49	0322435	Shim - Wing attachment rear	AR	AR
-50	AN365-720	Nut	2	2
-51	0322712	Cover - Forward wing root gap - Left	1	1
-52	PK76XZ-8-8	Screw - (Attach forward wing root gap cover)	20	20
-53	NAS395-17-3	Nut - (Tinnerman A1348-8Z-3)	20	20
-54	0322714	Cover - Lower wing root gap - Left	1	1
-55	0322714-1	Cover - Upper wing root gap - Left	1	1
-56	0322719	Clip - Cover retaining	7	7
-57	PK76XZ-10-8	Screw - (Attach upper and lower wing root gap covers)	12	12
-58	NAS395-28-3	Nut - (Tinnerman A1793-10Z-102)	1	1
-59	0322711	Cover - Aft wing root gap	1	1
-60	0322719	Clip - Cover retaining	12	12
-61	PK76XZ-8-8	Screw - (Attach aft wing root gap cover)	12	12
-62	NAS395-17-3	Nut - (Tinnerman A1348-8Z-3)	12	12

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

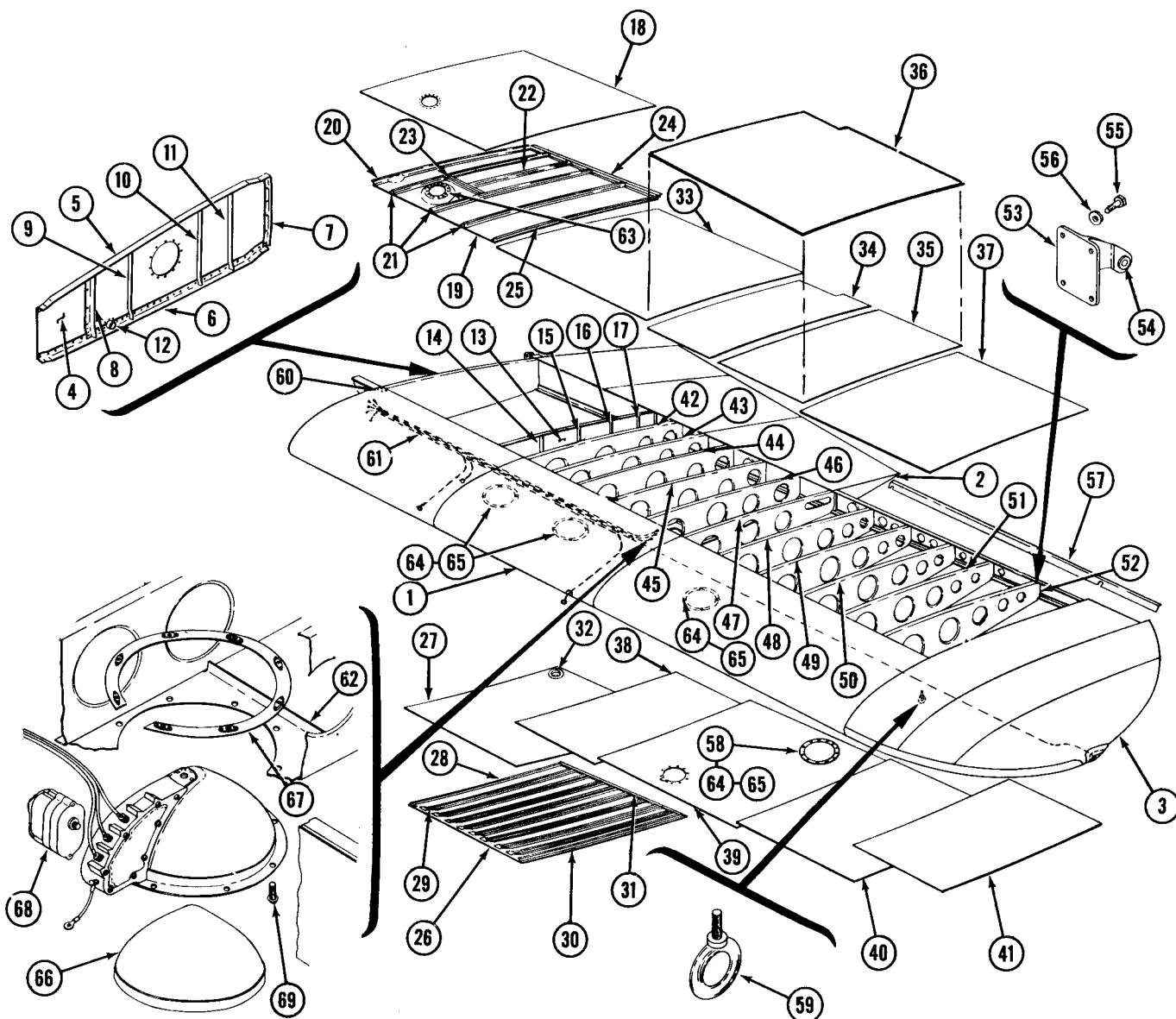


FIGURE 3—WING STRUCTURE ASSEMBLY—LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0320000-60	Structure Assembly - Left wing (see figure 2 for NHA) (ser 7003 - 16083)	Ref	Ref
3-1	0322100	Leading Edge Assembly - Left wing (see figure 4) (ser 7003 - 16083)	1	1
	0322100-18	Leading Edge Assembly - Left wing (see figure 4) (ser 16084 & on)	1	1
-2	0322200	Trailing Edge Assembly - Left wing (see figure 5)	1	1
-3	0323000	Wing Tip Assembly - Left (see figure 6)	1	1
	0322518	Bulkhead Assembly - Left fuel cell (Sta. 28.875)	1	1
-4	0322519	Bulkhead - Left fuel cell (Sta. 28.875)	1	1
-5	0322520	Angle - Bulkhead stiffener upper	1	1
-6	0322521	Angle - Bulkhead stiffener lower	1	1
-7	0322522	Angle - Bulkhead forward	1	1
-8	0322523-1	Angle - Bulkhead stiffener	1	1
-9	0322523-2	Angle - Bulkhead stiffener	1	1
-10	0322523-3	Angle - Bulkhead stiffener	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

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FIGURE 3

STRUCTURE ASSEMBLY - LEFT WING (CONTINUED)

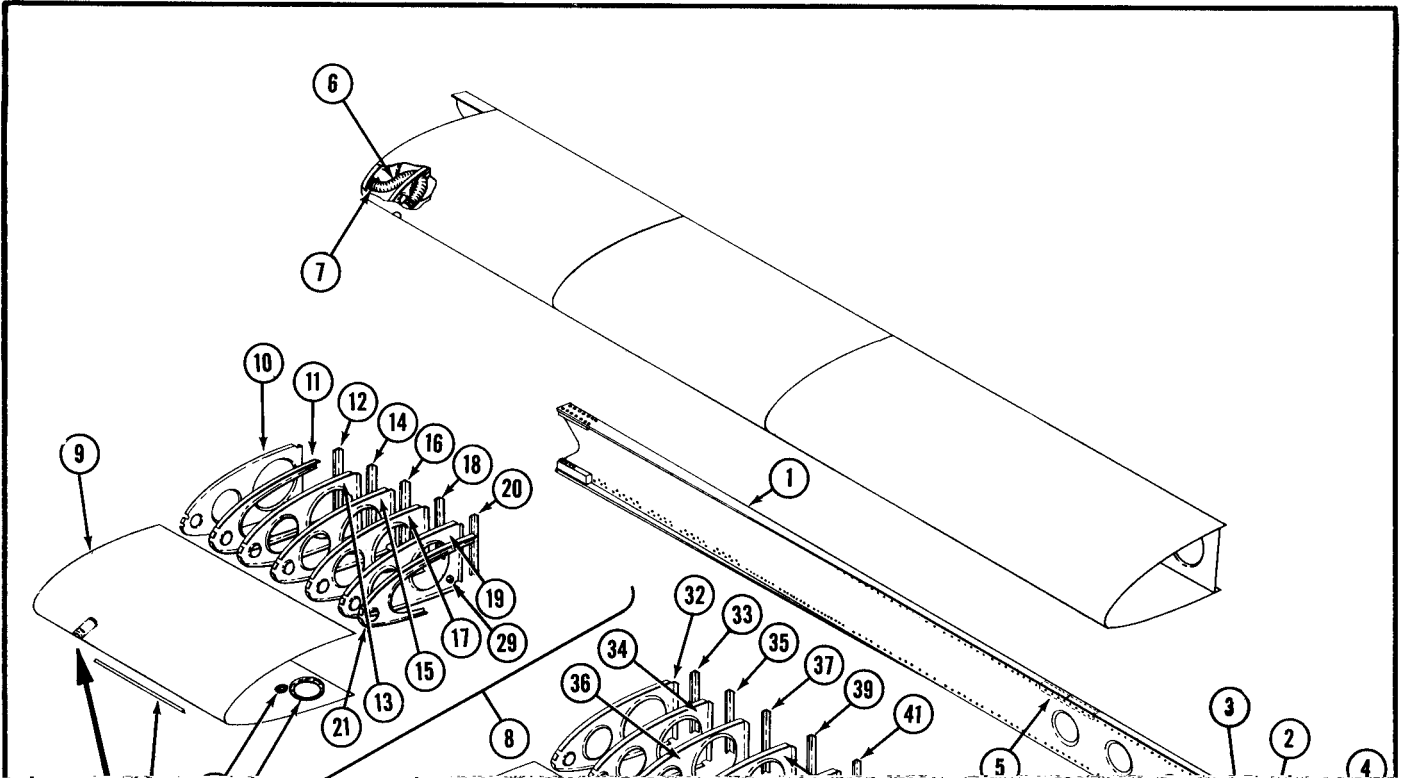
FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
3-11	0322523-4	Angle - Bulkhead stiffener							1	1
-12	0322524	Adapter - Fuel cell outlet							2	2
	0322507	Bulkhead Assembly - Left fuel cell (Sta. 65.0)							1	1
-13	0322506	Bulkhead - Left fuel cell (Sta. 65.0)							1	1
-14	0322508-1	Stiffener - Bulkhead							1	1
-15	0322508-2	Stiffener - Bulkhead							1	1
-16	0322508-3	Stiffener - Bulkhead							1	1
-17	0322508-4	Stiffener - Bulkhead							1	1
	0322500	Panel Assembly - Left fuel cell upper							1	1
-18	0322500-3	Skin - Left upper panel outer							1	1
-19	0322540	Skin - Left upper panel inner							1	1
-20	0322515	Stiffener - Left upper panel inboard							1	1
-21	0322511	Stiffener - Upper panel							3	3
-22	0322531	Stiffener - Upper panel							1	1
-23	0322530	Stiffener - Upper panel cross							1	1
-24	0322516-6	Stiffener - Upper panel rear							1	1
-25	0322513	Stiffener - Left upper panel inboard							1	1
	0322510	Panel Assembly - Left fuel tank lower							1	1
-26	0322510-5	Skin - Left lower panel outer							1	1
-27	0322510-3	Skin - Left lower panel inner							1	1
-28	0322514	Stiffener - Left lower panel inboard							1	1
-29	0322509	Stiffener - Lower panel inner							8	8
-30	0322512	Stiffener - Left lower panel outboard							1	1
-31	0322516-5	Stringer - Lower panel rear							1	1
-32	0322517	Adapter - Fuel cell drain							1	1
	AN366F832	Nutplate							3	3
-33	0320200-2	Skin - Top inboard (Sta. 65.0 to 109.0)							1	1
-34	0320200-10	Skin - Top inboard (Sta. 109.0 to 129.0)							1	1
-35	0320200-8	Skin - Top center outboard (Sta. 129.0 to 149.5)							1	1
-36	0320200-4	Skin - Top center inboard (Sta. 109.0 to 149.5) (obsolete replaced by -8 & -10 skin on later models)								
-37	0320200-6	Skin - Top outboard (Sta. 149.5 to 181.0)							1	1
-38	0320200-3	Skin - Bottom inboard (Sta. 65.0 to 89.0)							1	1
-39	0320200-5	Skin - Bottom center inboard (Sta. 89.0 to 129.9)							1	1
-40	0320200-7	Skin - Bottom center outboard (Sta. 129.9 to 160.0)							1	1
-41	0320200-9	Skin - Bottom outboard (Sta. 160.0 to 181.0)							1	1
-42	0322607	Rib - Wing intermediate (Sta. 73.0)							1	1
-43	0322608	Rib - Wing intermediate (Sta. 81.0)							1	1
-44	0322609	Rib - Wing intermediate (Sta. 89.0)							1	1
-45	0322610	Rib - Wing intermediate (Sta. 99.0)							1	1
-46	0322611	Rib - Wing intermediate (Sta. 109.0)							1	1
-47	0322612	Rib - Wing intermediate (Sta. 119.0)							1	1
-48	0322613	Rib - Wing intermediate (Sta. 129.0)							1	1
-49	0322614	Rib - Wing intermediate (Sta. 139.0)							1	1
-50	0322615	Rib - Wing intermediate (Sta. 149.5)							1	1
-51	0322616	Rib - Wing intermediate (Sta. 160.0)							1	1
-52	0322617	Rib - Wing intermediate (Sta. 170.5)							1	1
-53	0322706	Bracket - Left outboard aileron hinge							1	1
-54	NAS 296-4A	Bearing - (Torrington AR-4-1)							1	1
-55	AN3-5A	Bolt - (Attach aileron hinge bracket)							4	4
-56	AN960-3	Washer - (Attach aileron hinge bracket)							4	4
-57	0322715	Fillet - Aileron							1	1
-58	0322127	Stiffener - Inspection opening							1	1
-59	0422344	Eyebolt - Mooring							1	1
-60	NAS178-8-7	Rivet - Ht-shear (2 top and 4 bottom)							6	6
	NAS178-8-8	Rivet - Ht-shear (2 top and 2 bottom)							4	4
	NAS178-8-9	Rivet - Ht-shear (attach bulkhead to spar)							2	2
	NAS179-8	Collar - Rivet							12	12
-61	No Number	Wire Bundle - (See fig 78 for wire)							1	1
-62	0322620	Plate - Left landing light mounting							1	1
-63	0322528	Filler - Fuel tank							1	1
	214	Tape - (2-3/4 mystic)(cover rivets in fuel tank cavity)							AR	AR
-64	0322128	Plate - Access hole							4	4
-65	PK76XZ-8-6	Screw - (Attach cover plate to wing)							16	16
	0322006-1	Light Assembly - Landing							1	1
-66	0322006-2	Bulb - Landing light							1	1
-67	0322006-4	Band - Landing light retainer							1	1
-68	0422007-3	Power Unit Assembly - Landing light							1	1
-69	AN505-6R10	Screw - (Attach to landing light)							15	15

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG



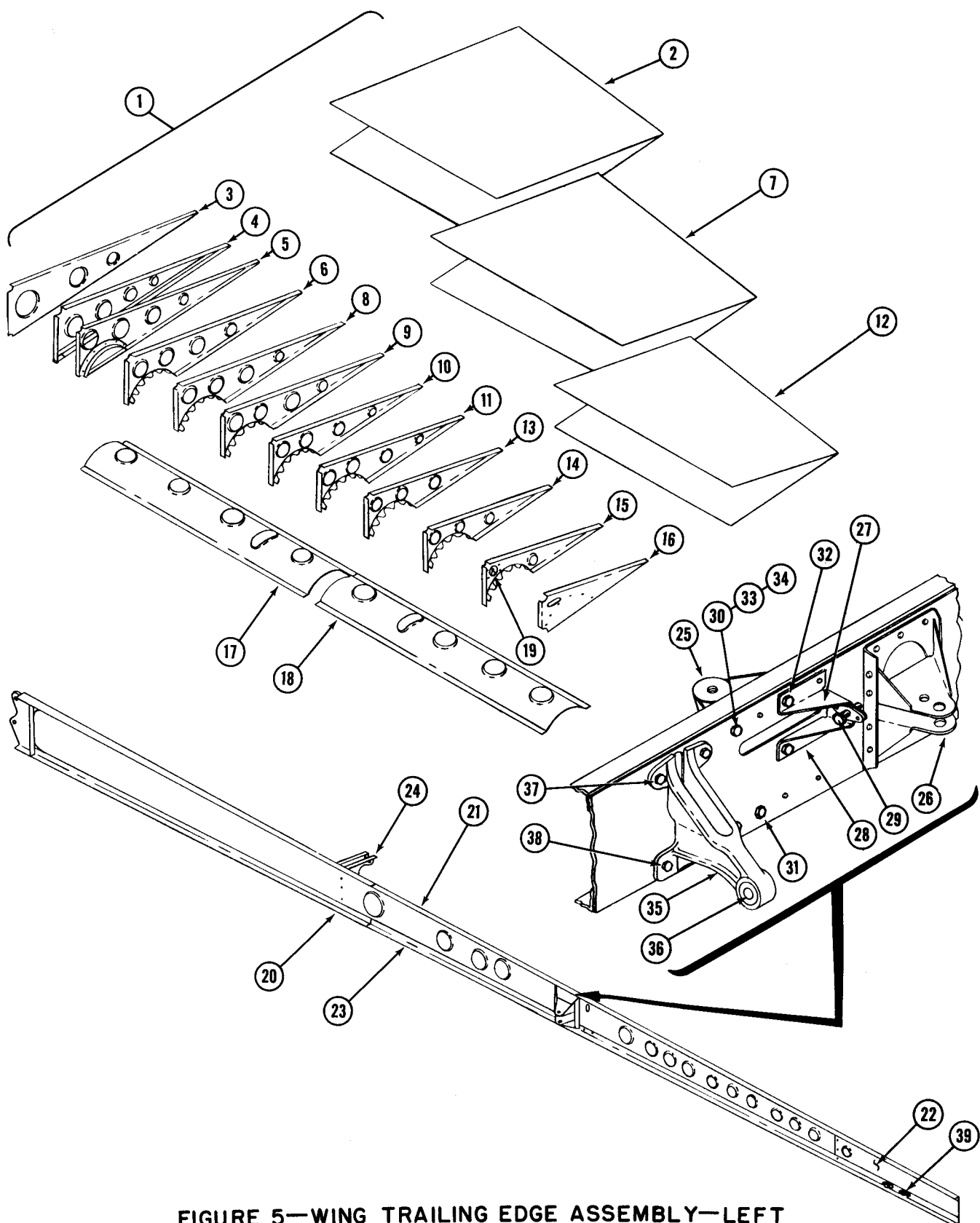


FIGURE 5—WING TRAILING EDGE ASSEMBLY—LEFT

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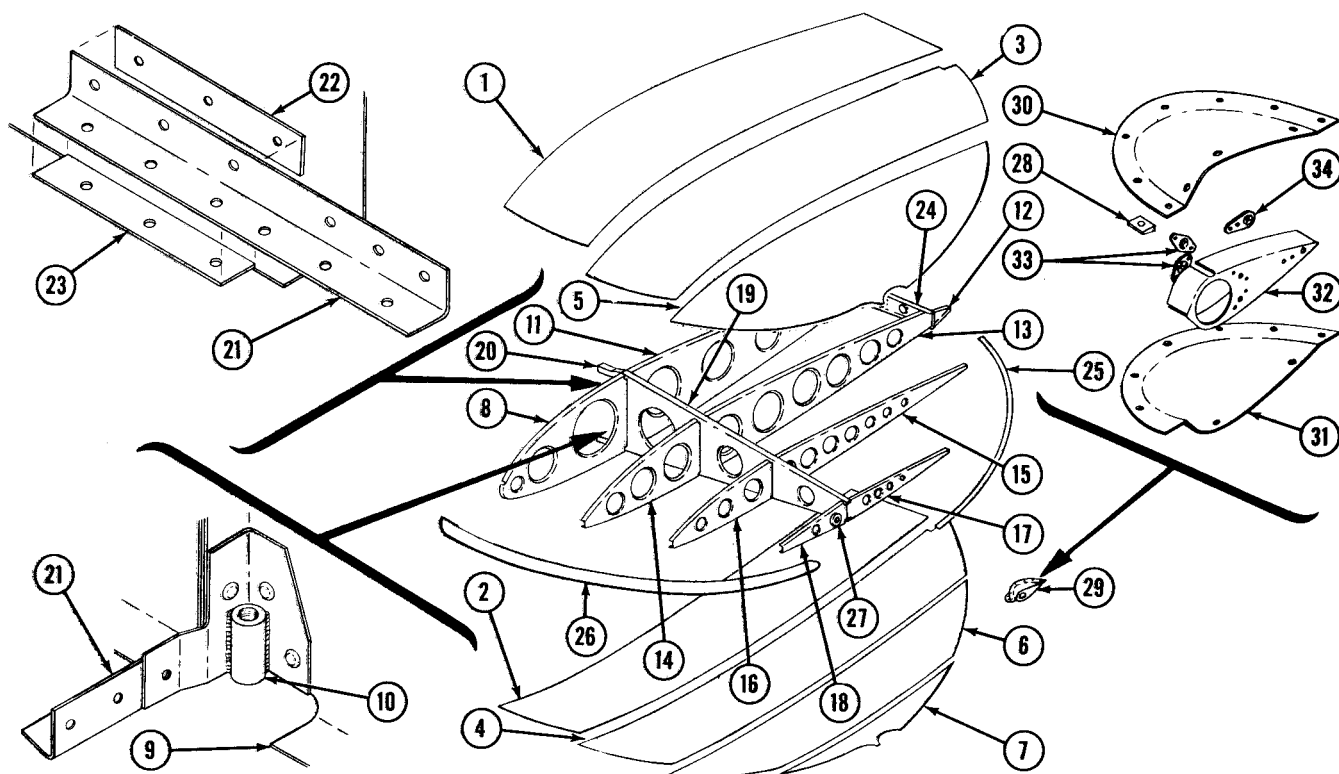


FIGURE 6—WING TIP ASSEMBLY—LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
	0323000	Wing Tip Assembly - Left (see figure 3 for NHA)							1	1
	0323000 CP	Wing Tip Assembly - Left (corrosion proofed)							1	1
6-1	0323000-11	Skin - Wing tip upper (Sta. 181.0 to 191.5)							1	1
-2	0323000-13	Skin - Wing tip lower (Sta. 181.0 to 191.5)							1	1
-3	0323000-3	Skin - Wing tip upper (Sta. 191.5 to 201.5)							1	1
-4	0323000-5	Skin - Wing tip lower (Sta. 191.5 to 201.5)							1	1
-5	0323000-7	Skin - Wing tip upper (Sta. 201.5 to 217.0)							1	1
-6	0323000-15	Skin - Wing tip lower (Sta. 201.5 to 211.0)							1	1
-7	0323000-17	Skin - Wing tip lower (Sta. 211.0 to 217.0)							1	1
-8	0322136	Rib Assembly - Left wing tip nose (Sta. 181.0)							1	1
-9	0322123	Rib - Left wing tip nose							1	1
-10	0322135	Lug Assembly - Left wing mooring							1	1
-11	0322618	Rib - Wing tip (Sta. 181.0)							1	1
-12	0323112	Rib - Left wing tip trailing edge (Sta. 191.5)							1	1
-13	0323109	Rib - Left wing tip intermediate (Sta. 191.5)							1	1
-14	0323106	Rib - Left wing tip nose (Sta. 191.5)							1	1
-15	0323110	Rib - Left wing tip intermediate (Sta. 201.5)							1	1
-16	0323107	Rib - Left wing tip nose (Sta. 201.5)							1	1
-17	0323111	Rib - Left wing tip outboard intermediate (Sta. 211.0)							1	1
-18	0323108	Rib - Left wing tip outboard (Sta. 211.0)							1	1
-19	0323115	Spar - Left wing tip front							1	1
-20	0323118	Angle - Left wing tip front spar upper							1	1
-21	0323119	Angle - Left wing tip front spar lower							1	1
-22	0323122	Spacer - Wing tip front spar lower splice angle side							1	1
-23	0323123	Spacer - Wing tip front spar lower splice angle bottom							1	1
-24	0323116	Spar - Left wing tip rear							1	1
-25	0323120	Filler - Wing tip outboard skin rear							1	1
-26	0323113	Fairing - Wing tip leading edge							1	1
-27	AN230A10	Grommet - Plain							4	4
-28	0323000-19	Spacer							1	1
-29	0323000-20	Mount Assembly - Navigation light							1	1
-30	0323114	Plate - Wing tip navigation light cover upper							1	1
-31	0323114-1	Plate - Wing tip navigation light cover lower							1	1
-32	0323117	Bracket - Wing tip navigation light mount							1	1
-33	NAS444-2	Nut - (Tinnerman A6195-7Z-3)							2	2
-34	NAS445-2	Nut - (Tinnerman A6196-6Z-3)							1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

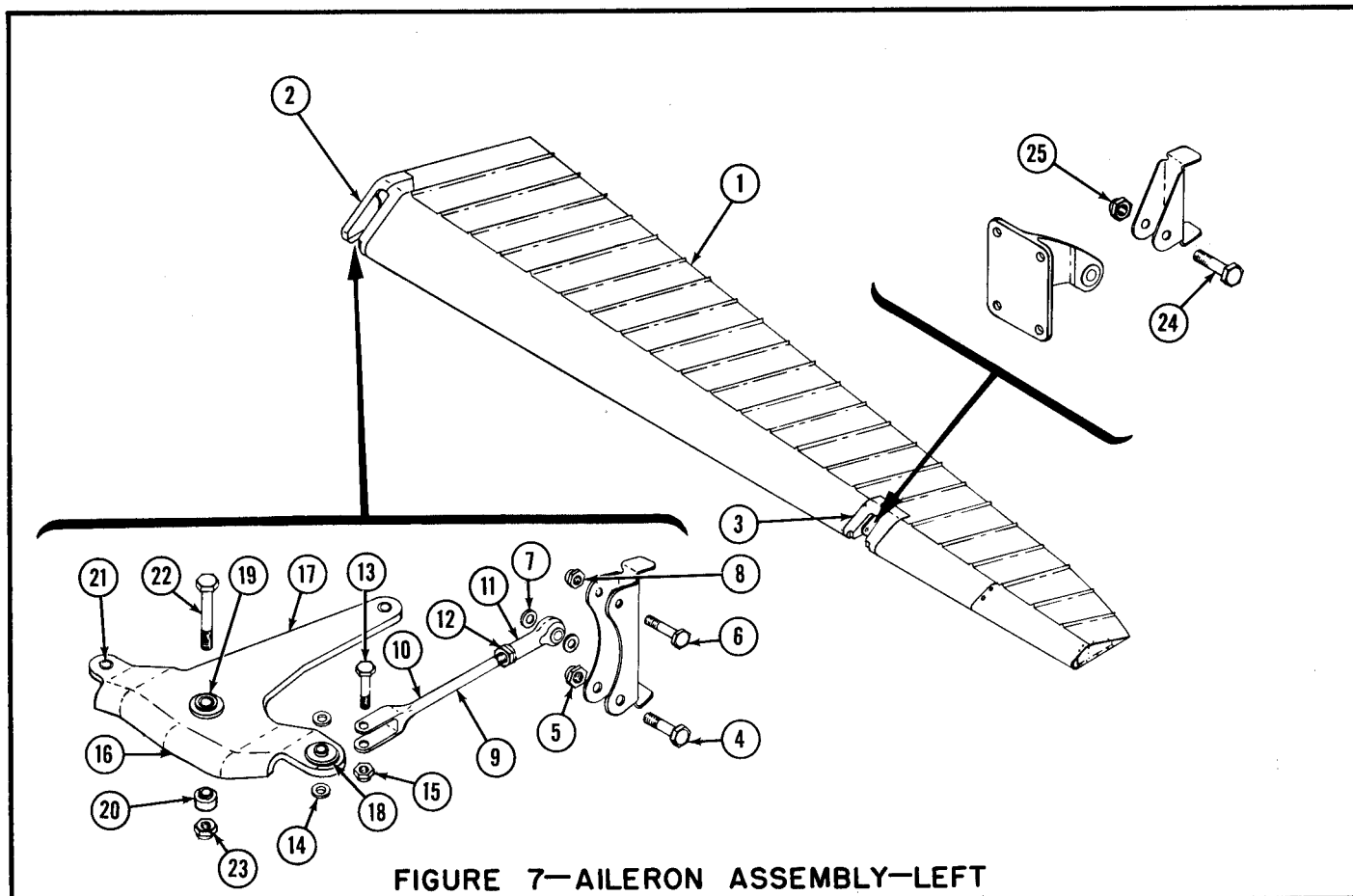


FIGURE 7—AILERON ASSEMBLY—LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
7-1	0324000	Aileron Assembly - Left wing (see figure 2 for NHA)	Ref	Ref
-2	0324110	Cover Assembly - Inboard aileron hinge	1	1
	PK76XZ-8-6	Screw - (Attach hinge cover)	4	4
	NAS444-5	Nut	4	4
-3	0324111	Plate - Outboard aileron hinge cover	1	1
	PK76XZ-8-6	Screw - (Attach plate)	4	4
	NAS444-5	Nut	4	4
-4	AN4-11A	Bolt - (Attach inboard aileron hinge to bracket)	1	1
-5	AN365-428	Nut	1	1
-6	AN3-11A	Bolt - (Attach push-pull tube to aileron bracket)	1	1
-7	AN960-10	Washer	2	2
-8	AN365-1032	Nut	1	1
-9	0320121	Rod Assembly - Aileron push-pull	1	1
-10	0320121-2	Rod - Aileron push-pull	1	1
-11	NAS-36	Rod Endg	1	1
-12	AN316-4R	Nut - Check	1	1
-13	AN3-10A	Bolt - (Attach push-pull tube to aileron bellcrank)	1	1
-14	AN960-10	Washer	2	2
-15	AN365-1032	Nut	1	1
-16	0320106	Bellcrank Assembly - Aileron (ser 7003 thru 16083)	1	1
-17	0320106-2	Bellcrank Assembly - Aileron (less bearings) (Ser 7003 thru 16083)	1	1
-18	0320110	Bushing - Aileron bellcrank cable	1	1
	0320107	Bellcrank Assembly - Aileron (ser 16084 & on)		1
	0320107-2	Bellcrank Assembly - Aileron (less bearings) (ser 16084 & on)		1
	0320108	Bushing - Aileron bellcrank cable (ser 16084 & on)		1
	0320109	Bushing - Aileron bellcrank cable (ser 16084 & on)		1
-19	AN200-KS3	Bearing - (Fafnir KS3)	1	1
-20	NAS296-4A	Bearing - (Torrington AR4-1)	1	1
-21	0320140	Spacer - Aileron bellcrank bearing	1	1
-22	AN4-20A	Bolt - (Attach aileron bellcrank to bracket)	1	1
-23	AN365-428	Nut	1	1
-24	AN4-11A	Bolt - (Attach outboard aileron hinge to bracket)	1	1
-25	AN365-428	Nut	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

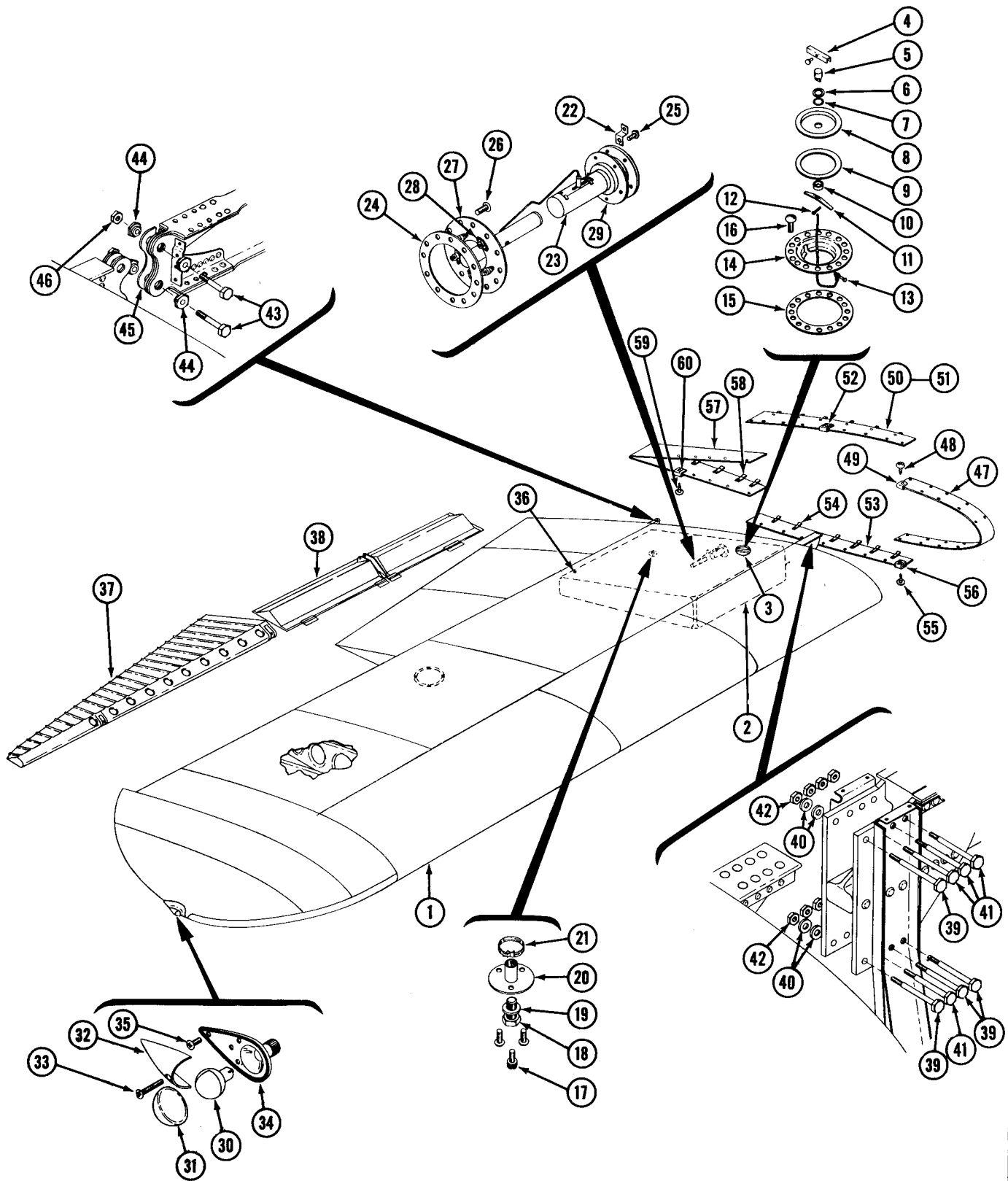


FIGURE 8—WING ASSEMBLY COMPLETE—RIGHT

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FIGURE 8

WING ASSEMBLY - COMPLETE RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
8-	0320000-1	Wing Assembly - Complete right (see fig 1 for NHA)	Ref	Ref
-1	0320000-21	Structure Assembly - Right wing (fig 9 for breakdown)	1	1
-2	0322539-1	Tank - Right wing fuel (40 gallons capacity)	1	1
	0322532-1	Cap Assembly - Fuel cell filler	1	1
-3	0322532-4	Cap Assembly	1	1
-4	0322533	Handle	1	1
-5	0322534	Pin - Fuel tank cap handle	1	1
-6	NAS143-8C	Washer	1	1
-7	AN6227-10	"O" Ring	1	1
-8	0322536	Cap - Fuel tank	1	1
-9	0322551	Gasket - Fuel tank cap	1	1
-10	NAS43DD-8-8	Spacer	1	1
-11	0322548	Spring - Fuel tank cap lock	1	1
-12	AN380-4-2	Pin - Cotter	1	1
-13	0322532-3	Chain - Filler cap	1	1
-14	0322532-5	Cap Assembly - Fuel cell filler	1	1
-15	0320000-3	Gasket - Cap mounting	1	1
-16	AN525-416R6	Screw - (Attach cap plate to fuel tank)	16	16
-17	AN500-8-7	Screw - (Attach safety for drain plug)	1	1
-18	0320105	Plug & Bleeder - Fuel tank drain	1	1
-19	AN902-5	Gasket - Fuel tank drain	1	1
-20	0322526	Adapter - Fuel tank drain	1	1
-21	NAS397-16	Clamp - (Tinnerman A3122-16-59)	1	1
-22	0413247-1	Strap - Fuel tank ground	1	1
-23	0311022-1	Liquidometer - Fuel tank unit	1	1
-24	0320000-2	Gasket - Liquidometer	1	1
-25	AN520-1032R8	Screw - (Attach liquidometer to adapter plate)	5	5
-26	AN526-428R8	Screw - (Attach adapter plate)	12	12
-27	0322546	Adapter Assembly - Fuel tank liquidometer	1	1
-28	22NAI-02	Nutplate	5	5
-29	0322541	Gasket - Rubber	2	2
	0423006-3	Light Assembly - Wing position right	1	1
-30	0423006-6	Bulb - Wing position light	1	1
-31	0423006-4	Lens - Wing position light (green)	1	1
-32	0423006-5	Fairing - Wing position light	1	1
-33	PK148-632-10	Screw - (Attach fairing to lamp base)	1	1
-34	0423006-7	Gasket - Wing position light	1	1
-35	PK76XZ-6-4	Screw - (Attach light assembly to wing tip)	3	3
-36	48152	Plug Button	1	1
-37	0324000-1	Aileron Assembly - Right (see figure 13 for breakdown)	1	1
-38	0325000	Flap Assembly - Right (see fig 14 for breakdown)(ser 7003 thru 16083)	1	1
	0325001-2	Flap Assembly - Right (see fig 14 for breakdown)(ser 16084 & on)	1	1
-39	0300001-7	Bolt - (Attach front spar to fuselage)	4	4
-40	AN960-C716	Washer	4	4
-41	0300001-8	Bolt - (Attach front spar to fuselage)	4	4
-42	AN365-624	Nut	8	8
-43	NAS174-31	Bolt - (Attach rear spar to fuselage)	2	2
-44	0322717	Bushing - Wing attachment rear	2	2
-45	0322435	Shim - Wing attachment rear	AR	AR
-46	AN365-720	Nut	2	2
-47	0322712-1	Cover - Forward wing root gap	1	1
-48	PK76XZ-8-8	Screw - (Attach forward wing root gap cover)	20	20
-49	NAS395-17-3	Nut - (Tinnerman A1793-10Z-102)	20	20
-50	0322714	Cover - Upper wing root gap right (eff. to serials 7398)	1	1
-51	0322714-5	Cover - Upper wing root gap right (eff. serials 7399 & on)	1	1
-52	0322719	Clip - Cover retaining	7	7
-53	0322714-1	Cover - Lower wing root gap	1	1
-54	0322719	Clip - Cover retaining	7	7
-55	PK76XZ-10-8	Screw	12	12
-56	NAS395-28-3	Nut	12	12
-57	0322711-1	Cover - Aft wing root gap right	1	1
-58	0322719	Clip - Cover retaining	12	12
-59	PK76XZ-8-8	Screw	12	12
-60	NAS395-17-3	Nut	12	12

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

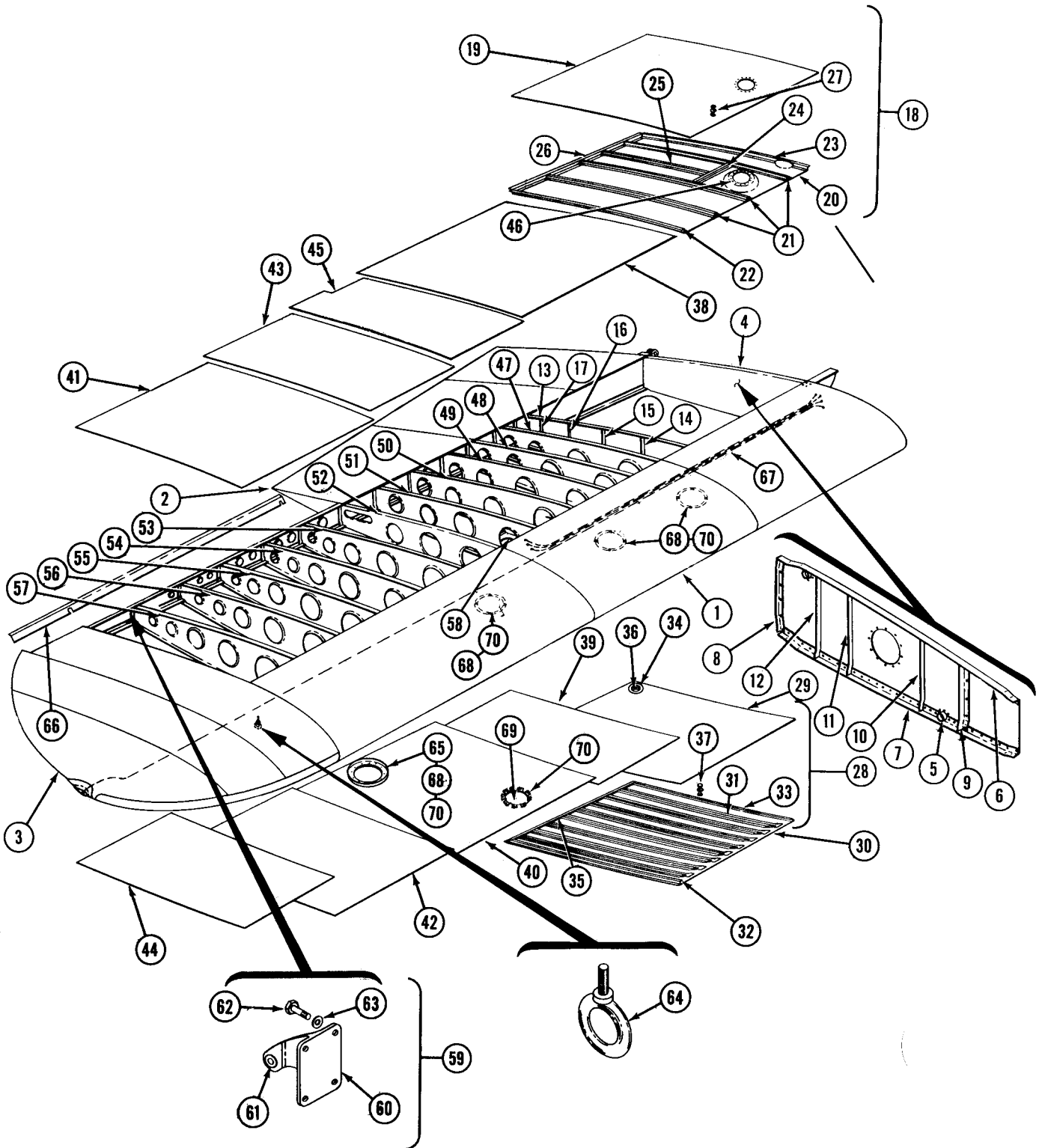


FIGURE 9—WING STRUCTURE ASSEMBLY—RIGHT

-65	0322127	Stiffener - Inspection opening	1	1
-66	0322715-1	Fillet - Aileron	1	1
-67	No Number	Wire Bundle - (See fig 78 for wires)	1	1
-68	0322128	Plate - Access hole cover	4	4
-69	0322622	Cover Plate - Landing light cavity (right landing light optional)	1	1
-70	PK76XZ-8-6	Screw - (Attach inspection & light cavity covers to wing)	24	24
	NAS395-12-3	Nut (Tinnerman AL768-8Z-3)	24	24

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

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FIGURE 10

LEADING EDGE ASSEMBLY - RIGHT WING

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	0322140	Leading Edge Assembly - Right wing (see figure 9 for NHA)	Ref	Ref
10-1	0322300-1	Spar Assembly - Wing front right	1	1
-2	0322329-1	Web - Outboard	1	1
-3	0322307	Cap Strip - Upper outboard	1	1
-4	0322309-1	Cap Strip - Lower outboard	1	1
-5	0322327-1	Splice Assembly - Upper (Sta. 134.312)	1	1
-6	0450320-5	Hose - Cabin air vent	1	1
-7	NAS397-32P	Clamp - (Tinnerman A3499-32-4)	2	2
	0322140-13	Leading Edge Assembly - Right wing (Sta. 28.875 to 181.0)	1	1
-8	0322140-10	Segment Assembly - Leading edge (Sta. 28.875 to 73.75)	1	1
-9	0322140-9	Skin - Leading edge inboard (Sta. 28.875 to 73.75)	1	1
-10	0322131-1	Rib Assembly - Leading edge (Sta. 28.875)	1	1
-11	0322142	Rib - Leading edge (Sta. 35.0)	1	1
-12	0322108	Rib - Leading edge (Sta. 41.0)	1	1
-13	0322109	Rib - Leading edge (Sta. 49.0)	1	1
-14	0322110	Rib - Leading edge (Sta. 57.0)	1	1
-15	0322111-1	Rib - Leading edge (Sta. 65.0)	1	1
-16	0322143	Former - Leading edge (Sta. 69.0)	1	1
-17	0322330	Angle - Spar stiffener (Sta. 35.0)	1	1
-18	0322126-2	Angle - Spar stiffener (Sta. 41.0)	1	1
-19	0322126-3	Angle - Spar stiffener (Sta. 49.0)	1	1
-20	0322126-4	Angle - Spar stiffener (Sta. 57.0)	1	1
-21	0322126-5	Angle - Spar stiffener (Sta. 69.0)	1	1
-22	0322127	Stiffener - Access hole	1	1
-23	0322144-1	Strip - Stall (serial 7471 & on)	1	1
-24	0322100-10	Tube - Cabin air intake	1	1
-25	0322100-11	Seal - Cabin air intake	1	1
-26	0322100-9	Clip - Cabin air intake	1	1
-27	0322100-16	Clip - Cabin air intake	1	1
-28	0322140-11	Segment Assembly - Leading edge (sta 73.75 to 119.0)	1	1
-29	0322140-7	Skin - Leading edge (Sta. 73.75 to 119.0)	1	1
-30	0322112	Rib - Leading edge (Sta. 73.75)	1	1
-31	0322113	Rib - Leading edge (Sta. 81.0)	1	1
-32	0322114-3	Rib - Leading edge (Sta. 89.0)	1	1
-33	0322115	Rib - Leading edge (Sta. 99.0)	1	1
-34	0322116	Rib - Leading edge (Sta. 109)	1	1
-35	0322127	Stiffener - Access hole	1	1
-36	0322126-6	Angle - Spar stiffener (Sta. 73.75)	1	1
-37	0322126-7	Angle - Spar stiffener (Sta. 81.0)	1	1
-38	0322126-8	Angle - Spar stiffener (Sta. 89.0)	1	1
-39	0322126-9	Angle - Spar stiffener (Sta. 99.0 and 109.0)	2	2
-40	0322140-12	Segment Assembly - Leading edge (Sta. 119.0 to 181.0)	1	1
-41	0322140-5	Skin - Leading edge (Sta. 119.0 to 181.0)	1	1
-42	0322117-1	Rib - Leading edge (Sta. 119.0)	1	1
-43	0322118	Rib - Leading edge (Sta. 129.0)	1	1
-44	0322119	Rib - Leading edge (Sta. 139.0)	1	1
-45	0322120	Rib - Leading edge (Sta. 149.5)	1	1
-46	0322121	Rib - Leading edge (Sta. 160.0)	1	1
-47	0322122	Rib - Leading edge (Sta. 170.5)	1	1
-48	0322127	Stiffener - Access hole	1	1
-49	0322126-10	Angle - Spar stiffener	1	1
-50	AN230A10	Grommet	7	7
-51	AN230B3	Grommet	9	9

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

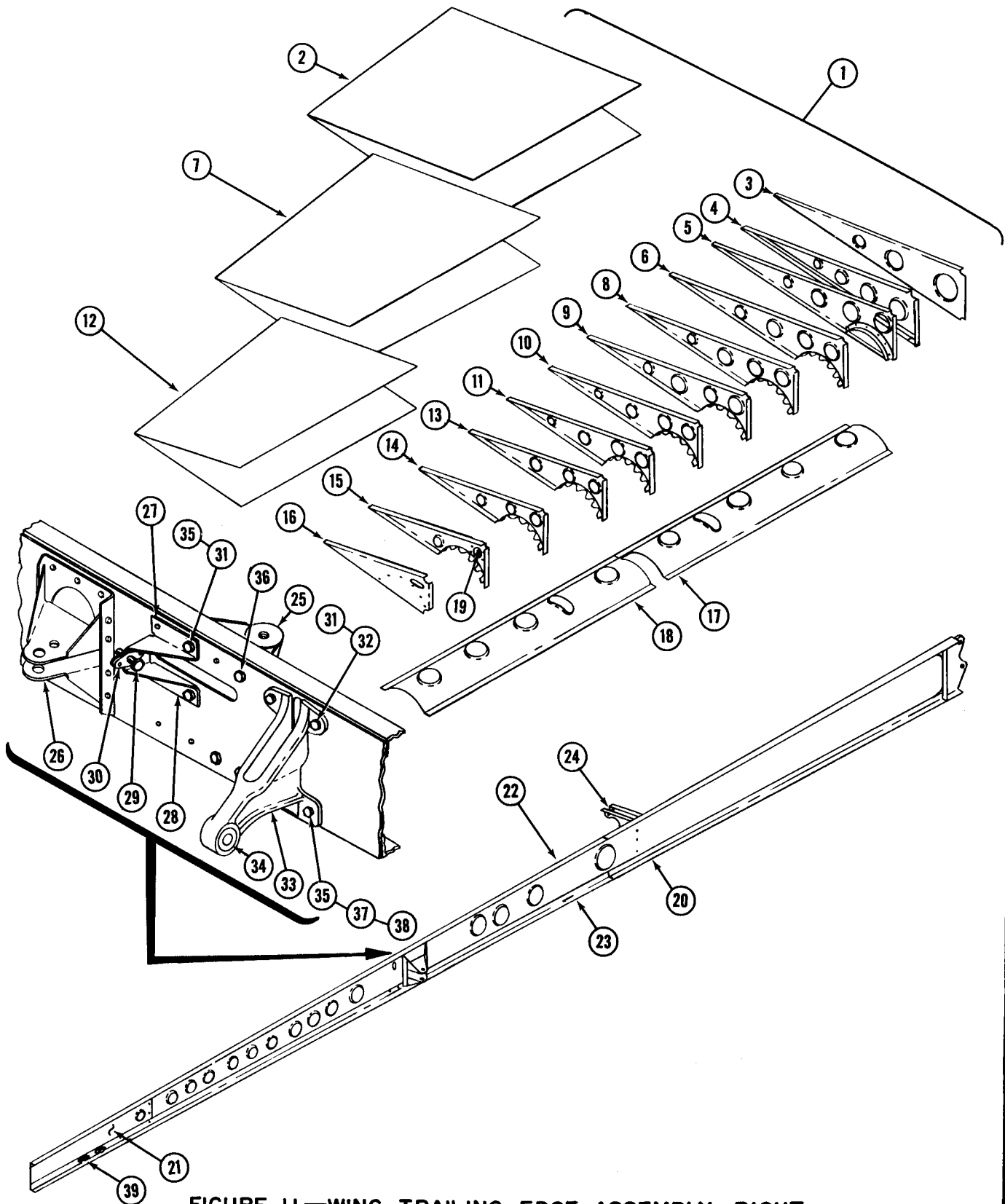


FIGURE 11—WING TRAILING EDGE ASSEMBLY—RIGHT

FIGURE 17

TRAILING EDGE ASSEMBLY - RIGHT WING

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

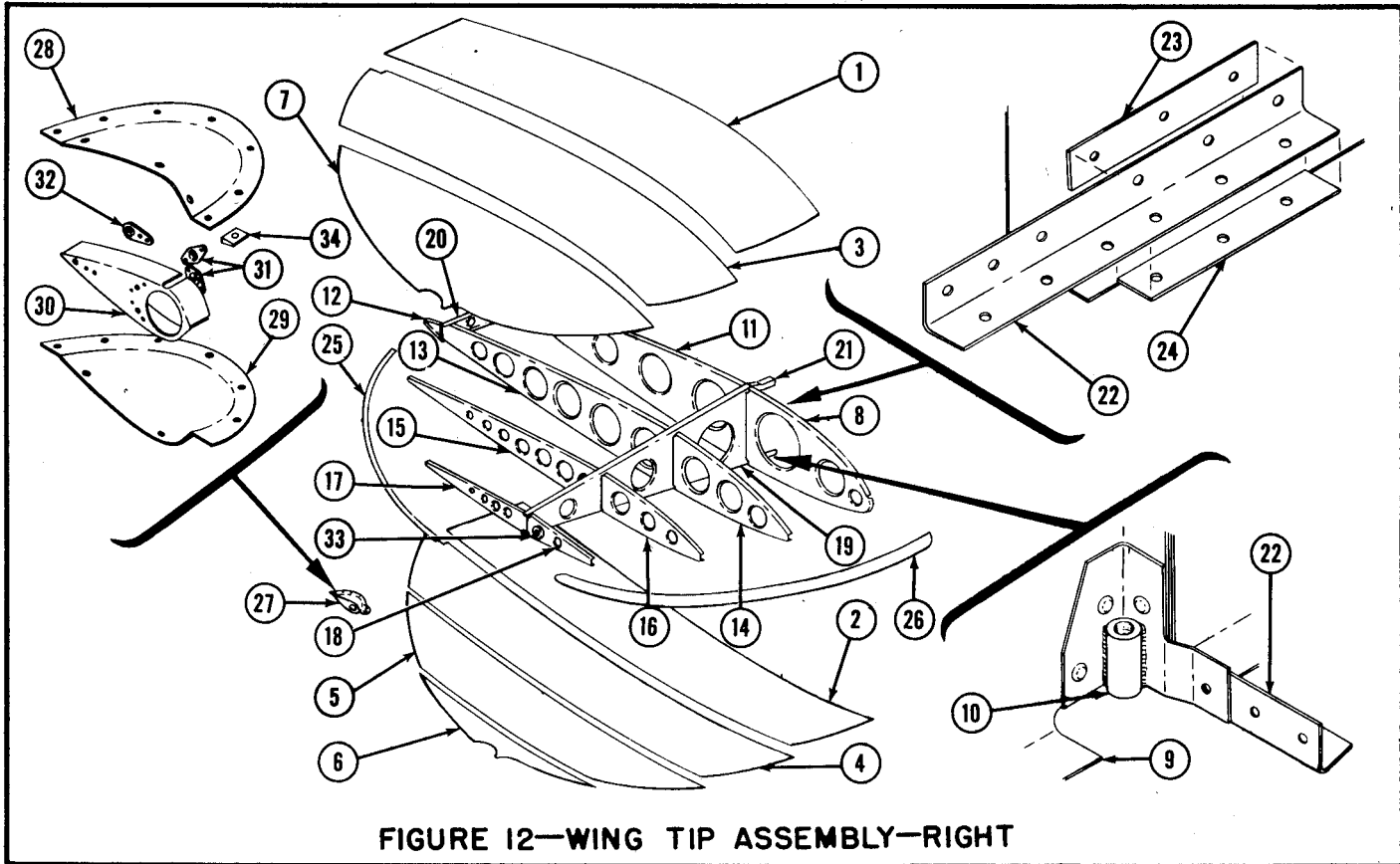


FIGURE 12—WING TIP ASSEMBLY—RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0323000-1	Wing Tip Assembly Complete - Right (see figure 9 for NHA)	Ref	Ref
	0323000-1 CP	Wing Tip Assembly Complete - Right (corrosion proofed)	1	1
12-1	0323000-11	Skin - Wing tip upper (Sta. 181.0 to 191.5)	1	1
-2	0323000-13	Skin - Wing tip lower (Sta. 181.0 to 191.5)	1	1
-3	0323000-3	Skin - Wing tip upper (Sta. 191.5 to 201.5)	1	1
-4	0323000-5	Skin - Wing tip lower (Sta. 191.5 to 201.5)	1	1
-5	0323000-15	Skin - Wing tip lower (Sta. 201.5 to 211.0)	1	1
-6	0323000-17	Skin - Wing tip lower (Sta. 211.0 to 217.0)	1	1
-7	0323000-7	Skin - Wing tip upper (Sta. 201.5 to 217.0)	1	1
-8	0322136-1	Rib Assembly - Wing tip leading edge (Sta. 181.0)	1	1
-9	0322123-1	Rib - Wing leading edge (Sta. 181.0)	1	1
-10	0322135-1	Lug Assembly - Wing mooring	1	1
-11	0322618-1	Rib - Wing tip (Sta. 181.0)	1	1
-12	0323112-1	Rib - Wing tip trailing edge (Sta. 191.5)	1	1
-13	0323109-1	Rib - Wing tip intermediate (Sta. 191.5)	1	1
-14	0323106-1	Rib - Wing tip leading edge (Sta. 191.5)	1	1
-15	0323110-1	Rib - Wing tip intermediate (Sta. 201.5)	1	1
-16	0323107-1	Rib - Wing tip leading edge (Sta. 201.5)	1	1
-17	0323111-1	Rib - Wing tip outboard intermediate (Sta. 211.0)	1	1
-18	0323108-1	Rib - Wing tip outboard leading edge (Sta. 211.0)	1	1
-19	0323115-1	Spar - Wing tip front	1	1
-20	0323116-1	Spar - Wing tip rear	1	1
-21	0323118-1	Angle - Wing tip front spar upper	1	1
-22	0323119-1	Angle - Wing tip front spar lower	1	1
-23	0323122	Spacer - Wing tip front spar lower	1	1
-24	0323123	Spacer - Wing tip front spar lower	1	1
-25	0323120	Filler - Wing tip outboard skin	1	1
-26	0323113	Fairing - Wing tip leading edge	1	1
-27	0323000-20	Mount Assembly - Navigation light	1	1
-28	0323114	Plate - Wing tip navigation light cover	1	1
-29	0323114-1	Plate - Wing tip navigation light cover	1	1
-30	0323117	Bracket - Wing tip navigation light mount	1	1
-31	NAS444-2	Nut - (Tinnerman A6195-6Z-3)	2	2
-32	NAS445-2	Nut - (Tinnerman A6196-6Z-3)	1	1
-33	A230-A10	Grommet	4	4
-34	0323000-19	Spacer	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

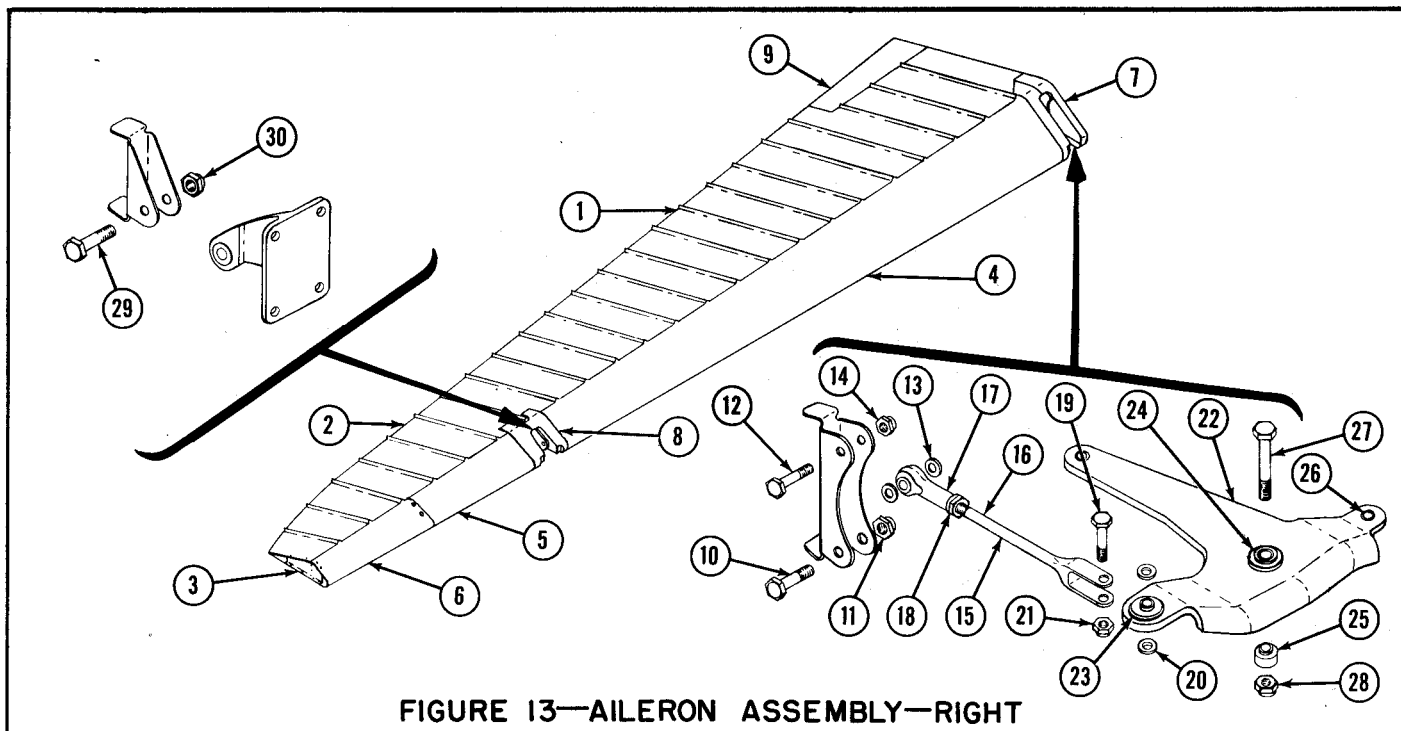


FIGURE 13—AILERON ASSEMBLY—RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS					
			1	2	3	4	5	6
13-1	0324000-1	Aileron Assembly - Right wing (see figure 9 for NHA)						
-2	0324000-3	Skin - Aileron upper						
-3	0324000-5	Skin - Aileron lower						
-4	0324109-1	Skin - Aileron leading edge (Sta. 121.5 to 169.625)						
-5	0324129-1	Skin - Aileron leading edge (Sta. 171.875 to 181.5)						
-6	0324130-1	Skin - Aileron leading edge (Sta. 181.5 to 191.0)						
-7	0324110-1	Cover Assembly - Inboard aileron hinge						
	PK76XZ-8-6	Screw - (Attach cover)						
	NAS444-5	Nut - (Attach cover)						
-8	0324111-1	Plate - Outboard aileron hinge cover						
	PK76XZ-8-6	Screw - (Attach plate)						
	NAS444-5	Nut - (Attach plate)						
-9	0324115	Tab - Aileron trim						
	PK76XZ-8-6	Screw - (Attach tab)						
	NAS395-17-3	Nut - (Rinnerman A1348-8Z-3)						
-10	AN4-11A	Bolt - (Attach inboard aileron hinge to bracket)						
-11	AN365-428	Nut						
-12	AN3-11A	Bolt - (Attach aileron push-pull tube to aileron)						
-13	AN960-10	Washer						
-14	AN365-1032	Nut						
-15	0320121	Rod Assembly - Aileron push-pull						
-16	0320121-2	Rod - Aileron push-pull						
-17	NAS-36	Rod End - Aileron push-pull						
-18	AN316-4R	Nut - Lock						
-19	AN3-10A	Bolt - (Attach aileron push-pull tube to bellcrank)						
-20	AN960-10	Washer						
-21	AN365-1032	Nut						
	0320106-1	Bellcrank Assembly - Aileron (ser 7003 thru 16083)						
-22	0320106-3	Bellcrank Assembly - Aileron (less bearing) (ser 7003 thru 16083)						
-23	0320110	Bushing - Aileron bellcrank cable						
	0320107-1	Bellcrank Assembly - Aileron (ser 16084 & on)						
	0320107-3	Bellcrank Assembly - Aileron (less bearings) (ser 16084 & on)						
	0320108	Bushing - Aileron bellcrank cable (ser 16084 & on)						
	0320109	Bushing - Aileron bellcrank cable (ser 16084 & on)						
-24	AN200-KS3	Bearing - (fafnir)						
-25	NAS296-4A	Bearing - (Torrington AR4-1)						
-26	0320140	Spacer - Aileron bellcrank bearing						
-27	AN4-20A	Bolt - (Attach aileron bellcrank to bracket)						
-28	AN365-428	Nut						
-29	AN4-11A	Bolt - (Attach outboard aileron hinge to bracket)						
-30	AN365-428	Nut						

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

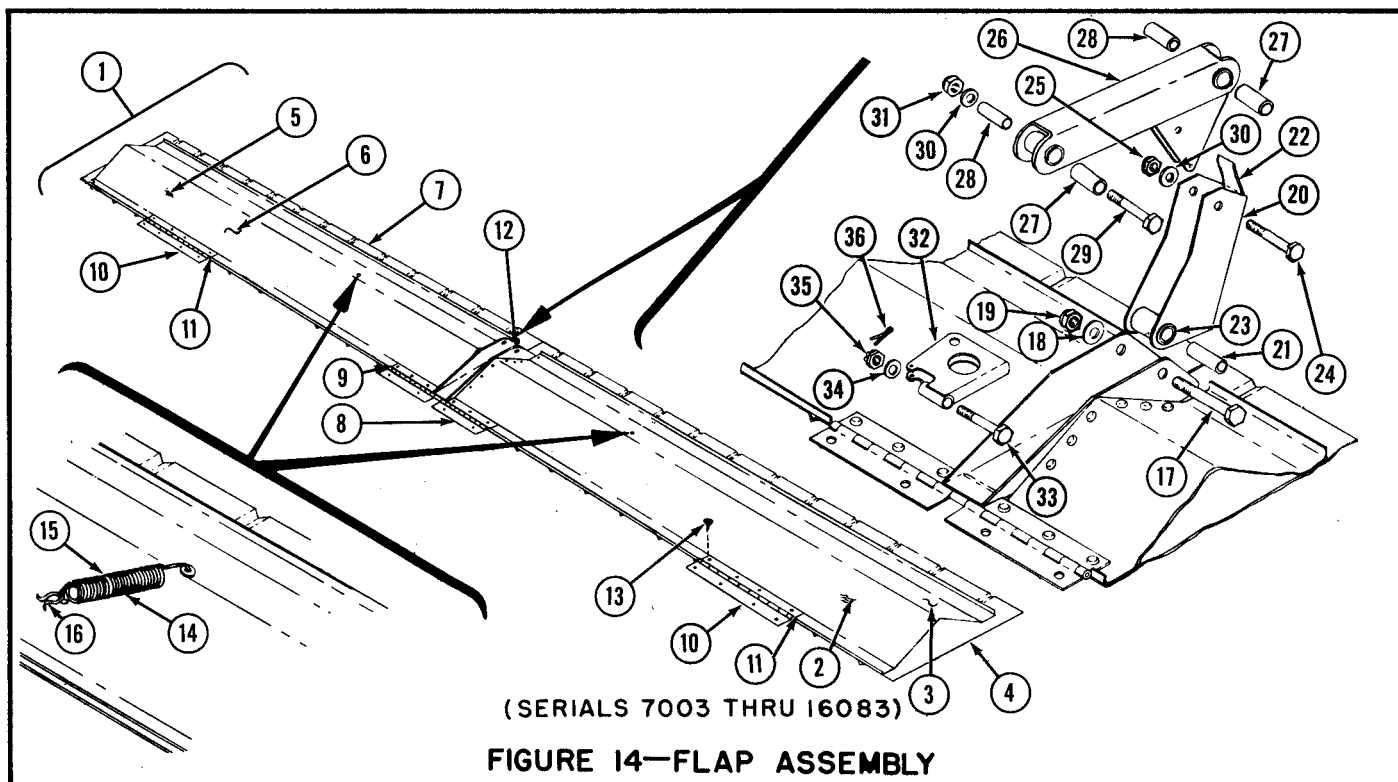
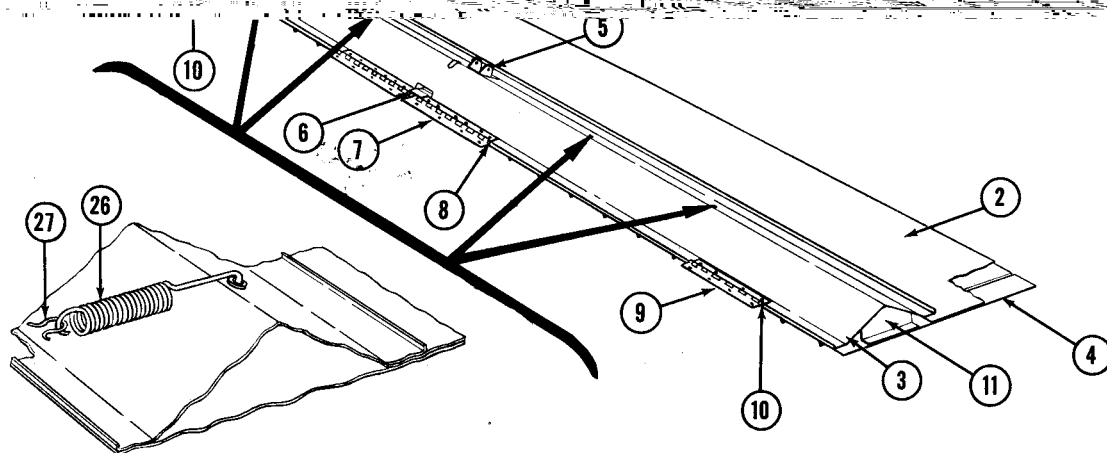


FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
14-1	0325000	Flap Assembly - Wing (see figures 2 & 8 for NHA)	Ref	Ref
	0325000 CP	Flap Assembly - Wing (corrosion proofed)	1	1
-2	0325118	Skin Assembly - Flap left	1	1
-3	0325109	Skin - Upper	1	1
-4	0325110	Skin - Lower	1	1
-5	0325118-1	Skin Assembly - Flap right	1	1
-6	0325109-1	Skin - Upper	1	1
-7	0325110	Skin - Lower	1	1
-8	0325115	Hinge - Flap center	1	1
-9	0325115-6	Pin - Center flap hinge	1	1
-10	0325116	Hinge - Flap end	2	2
-11	0325116-5	Pin - Flap end hinge	2	2
-12	0325119	Bracket - Flap center	1	1
-13	AN526-1032-R5	Screw - (Attach flap hinge to wing)	10	10
	AN365-1032	Nut	10	10
-14	0322716	Spring - Flap return (Eff. to serial 7348)	1	1
-15	0320145	Spring - Flap return (Eff. serial 7348 and on)	2	2
-16	2169	Fastener - (Flap return spring to spar)	2	2
-17	AN4-16A	Bolt - (Attach lower actuating arm to flap)	1	1
-18	AN960-416	Washer	1	1
-19	AN365-428	Nut	1	1
	0320137	Arm Assembly - Flap control lower	1	1
-20	0320137-3	Arm - Flap control lower	1	1
-21	A443-2	Bushing - (Oilite)	1	1
-22	0320139	Stop - Arm	1	1
-23	0320138-2	Bushing - Flap control arm	1	1
-24	AN4-12A	Bolt - (Attach lower arm to upper arm)	1	1
-25	AN365-428	Nut	1	1
	0320129	Arm Assembly - Flap control upper	1	1
-26	0320129-3	Arm - Flap control upper	1	1
-27	A443-3	Bushing - (Oilite)	2	2
-28	0320138-1	Bushing - Flap control arm	2	2
-29	AN4-12A	Bolt - (Attach upper arm to spar bracket)	1	1
-30	AN960-416	Washer	1	1
-31	AN365-428	Nut	1	1
-32	0320135	Bracket Assembly - Flap control pulley	1	1
-33	AN3-12	Bolt - (Pulley bracket to spar bracket)	1	1
-34	AN960-10	Washer	1	1
-35	AN310-3	Nut - Castle shear	1	1
-36	AN380-2-2	Pin - Cotter	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



(SERIALS 16084 & ON)
 FIGURE 14A—FLAP ASSEMBLY

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

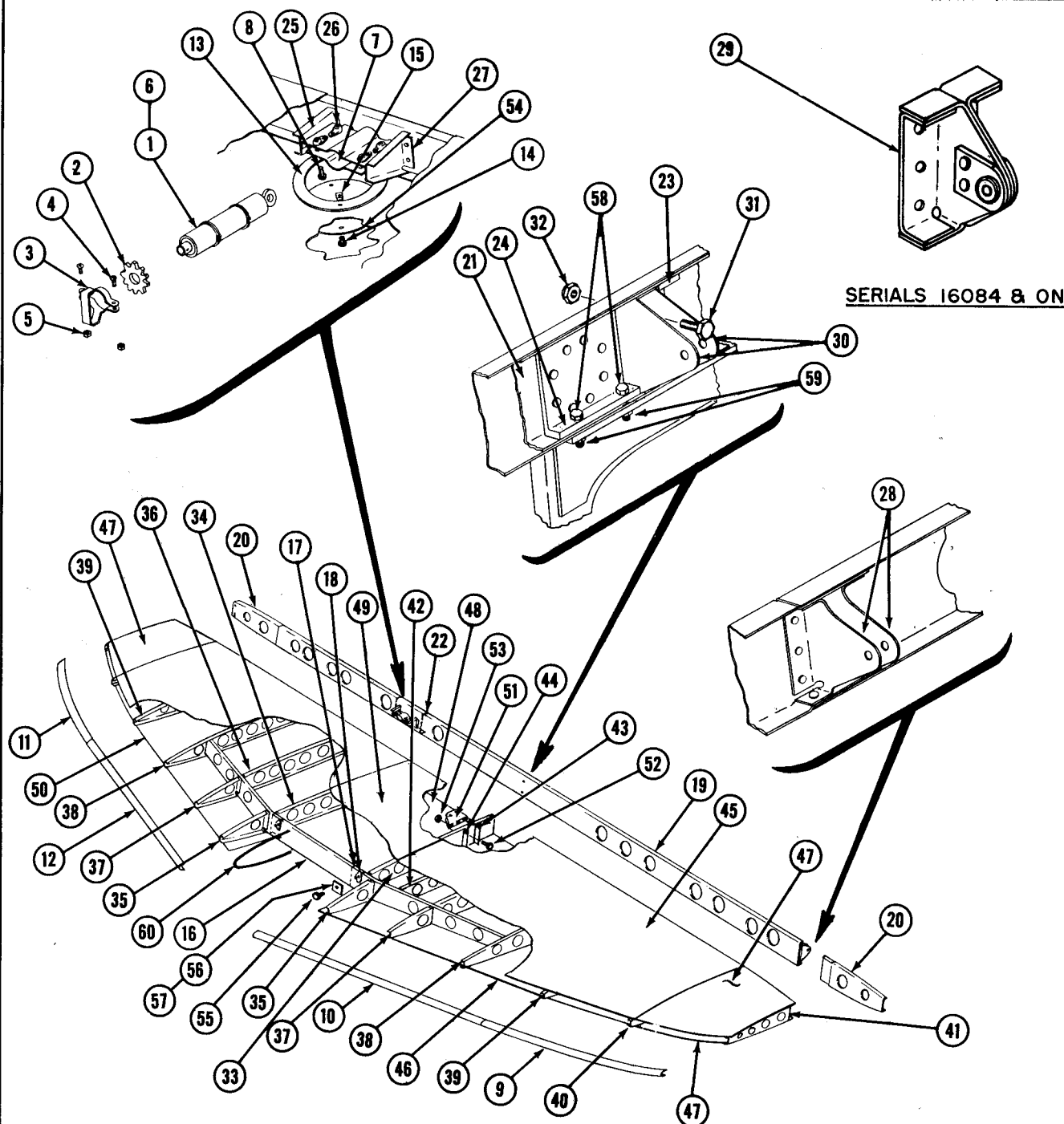


FIGURE 16—STABILIZER ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	No Number	Stabilizer Assembly - Horizontal (see figure 1 for NHA) (0332000)	Ref	Ref
	0332000	Stabilizer Assembly - Horizontal (serials 7003 thru 16083)	1	1
	0332000-27	Stabilizer Assembly - Horizontal (serials 16084 & on)	1	1
16-1	0310293-2	Actuator Assembly - Elevator tab (serials 7003 thru 16083)	1	1
	0310293-3	Actuator Assembly - Elevator tab (serials 16084 & on)	1	1
-2	0310332	Sprocket - Elevator tab actuator	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

FIGURE 16

STABILIZER ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
-3	0310422						Guard - Elevator tab actuator chain	1	1
-4	AN526-832R8						Screw - (Attach guard)	2	2
-5	AN365-832						Nut	2	2
-6	0310293-11						Actuator Assembly - Elevator tab	1	1
-7	0432126						Clamp - Tab actuator attachment	2	2
-8	AN520-10R6						Screw	4	4
	0332000-8						Stabilizer Assembly - Horizontal (less tab actuator)	1	1
	0332000-18						Leading Edge Assembly - Stabilizer left	1	1
-9	0332127						Leading Edge - Stabilizer outboard	1	1
-10	0322128						Leading Edge - Stabilizer inboard (ser 7003 thru 16083)	1	1
	0322128-25						Leading Edge - Stabilizer inboard (ser 16084 & on)	1	1
	0332000-19						Leading Edge Assembly - Stabilizer right	1	1
-11	0332127						Leading Edge - Stabilizer outboard	1	1
-12	0332128-1						Leading Edge - Stabilizer inboard (ser 7003 thru 16083)	1	1
	0332128-26						Leading Edge - Stabilizer inboard (ser 16084 & on)	1	1
-13	0432123						Plate - Tab actuator cover	1	1
-14	PK76XZ-8-8						Screw - (Attach cover plate)	4	4
-15	NAS395-14-3						Nut	4	4
	0332114						Spar Assembly - Horizontal stabilizer front	1	1
-16	0332115						Spar - Horizontal stabilizer front (ser 7003 thru 16083)	1	1
	0332115-3						Spar - Horizontal stabilizer front (ser 16084 & on)	1	1
-17	0332117						Channel - Stabilizer front spar attachment	2	2
-18	AN366F428						Nutplate - (Effective to serial 7684)	2	2
	0332106						Spar Assembly - Horizontal stabilizer rear (serials 7003 thru 16083)	1	1
	0332106-1						Spar Assembly - Horizontal stabilizer rear (serials 16084 & on)		1
-19	0332108						Spar - Horizontal stabilizer rear	1	1
-20	0332107						Tip - Horizontal stabilizer rear spar	2	2
-21	0332109						Angle - Stabilizer rear spar stiffener	1	1
-22	0332131						Plate - Bearing tab actuator	1	1
-23	0332110						Plate - Rear spar fin attachment	2	2
-24	0332111						Plate - Stabilizer spar attachment rear	2	2
-25	0332134						Bracket Assembly - Tab actuator	1	1
-26	22A3-02						Nutplate	4	4
-27	AN520-10R8						Screw - Tab actuator clamp	4	4
-28	0332113						Bracket - Stabilizer outboard hinge (ser 7003 thru 16083)	4	4
-29	0334224-4						Hinge Assembly - Horizontal Stabilizer (ser 16084 & on)		2
	0334224-3						Hinge Half - Elevator front (ser 16084 & on)		2
	NAS296-4A						Bearing (serials 16084 & on)	1	1
-30	0332112						Bracket - Stabilizer center hinge	1	1
-31	AN3-4A						Bolt - (Attach center bracket to spar)	2	2
-32	AN365-1032						Nut - (Attach center bracket to spar)	2	2
-33	0332118						Rib - Stabilizer center #1 (serials 7003 thru 16083)	2	2
	0332118						Rib - Stabilizer center #1 left hand (serials 16084 & on)		1
-34	0332118-1						Rib - Stabilizer center #1 right hand (serials 16084 & on)		1
-35	0332119						Rib - Stabilizer leading edge #1	2	2
-36	0332120						Rib - Stabilizer center #2	2	2
-37	0332121						Rib - Stabilizer leading edge #2	2	2
-38	0332122						Rib - Stabilizer #3	2	2
-39	0332123						Rib - Stabilizer #4	2	2
-40	0332124						Rib - Stabilizer #5	2	2
-41	0332125						Rib - Stabilizer #6	2	2
-42	0332105						Rib - Stabilizer (effective serials 7437 & on)	2	2
-43	0332129						Angle - Stabilizer #1 rib stiffener	1	1
-44	0332129-1						Angle - Stabilizer #1 rib stiffener	1	1
-45	0332000-1						Skin - Stabilizer upper (serials 7003 thru 16083)	2	2
	0332000-24						Skin - Stabilizer upper (serials 16084 & on)	2	2
-46	0332000-2						Skin - Stabilizer lower left (serials 7003 thru 16083)	1	1
	0332000-28						Skin - Stabilizer lower left (serials 16084 & on)		1
-47	0332000-3						Skin - Stabilizer tip	4	4
-48	0332000-4						Skin - Stabilizer lower center	1	1
-49	0332000-5						Skin - Stabilizer upper center	1	1
-50	0332000-6						Skin - Stabilizer lower right (serials 7003 thru 16083)	1	1
	0332000-23						Skin - Stabilizer lower right (serials 16084 & on)		1
-51	0332116						Bracket - Elevator tab pulley	1	1
-52	AN3-4A						Bolt - (Attach elevator tab pulley bracket)	1	1
-53	AN365-1032						Nut	1	1
-54	0432155						Retainer - Tab actuator cover	1	1
-55	AN4-5A						Bolt - (Attach stabilizer front spar to bulkhead)	2	2
-56	0430010-1						Shim - Empennage attachment (.020)	AR	AR
-57	0430010-2						Shim - Empennage attachment (.052)	AR	AR
-58	AN4-10A						Bolt - (Attach stabilizer to rear spar)	4	4
-59	AN365-428						Nut	4	4
-60	DA11875-4						Moulding - (X200 channel)	AR	AR

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

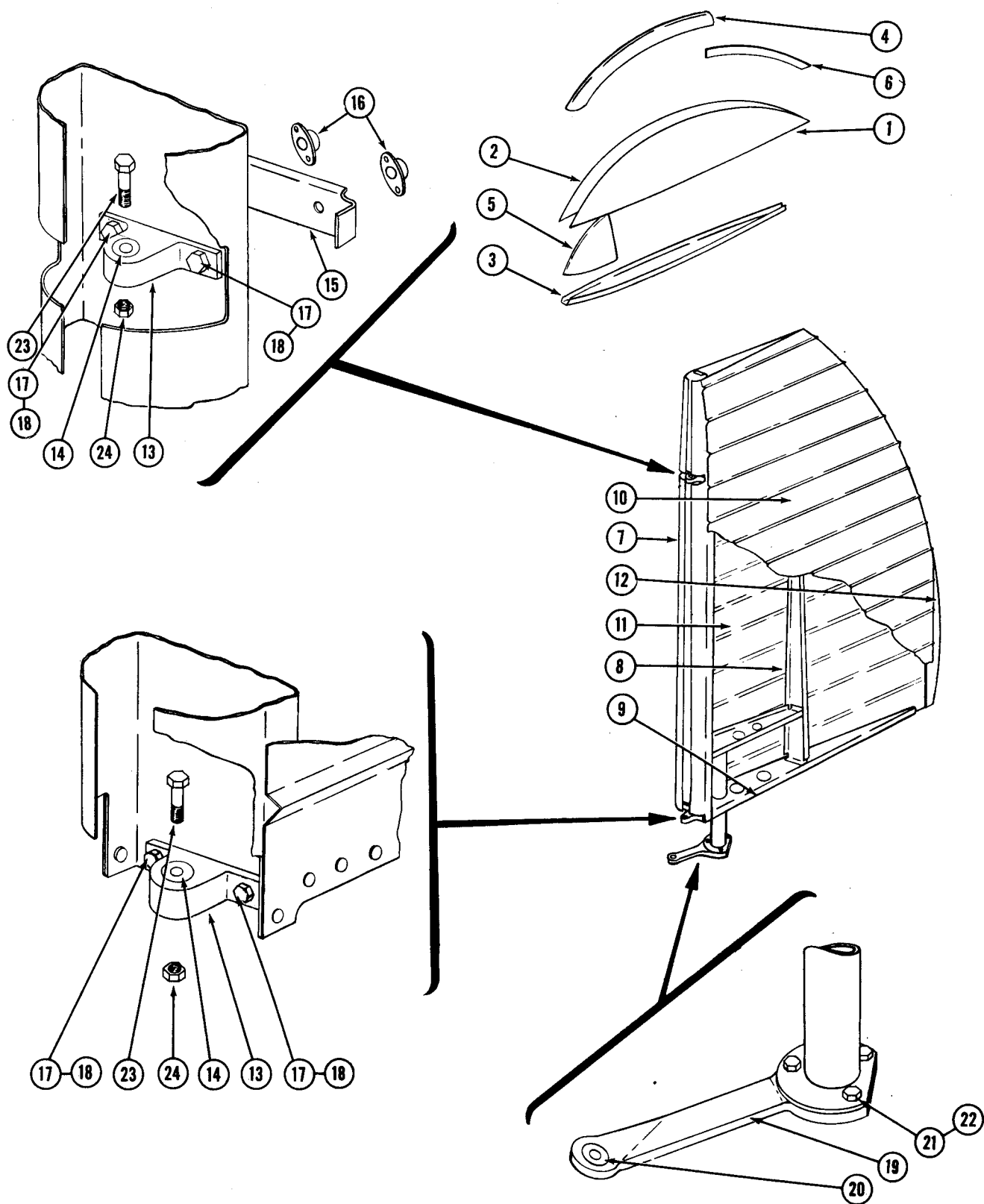


FIGURE 17—RUDDER ASSEMBLY

FIGURE 17

RUDDER ASSEMBLY

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

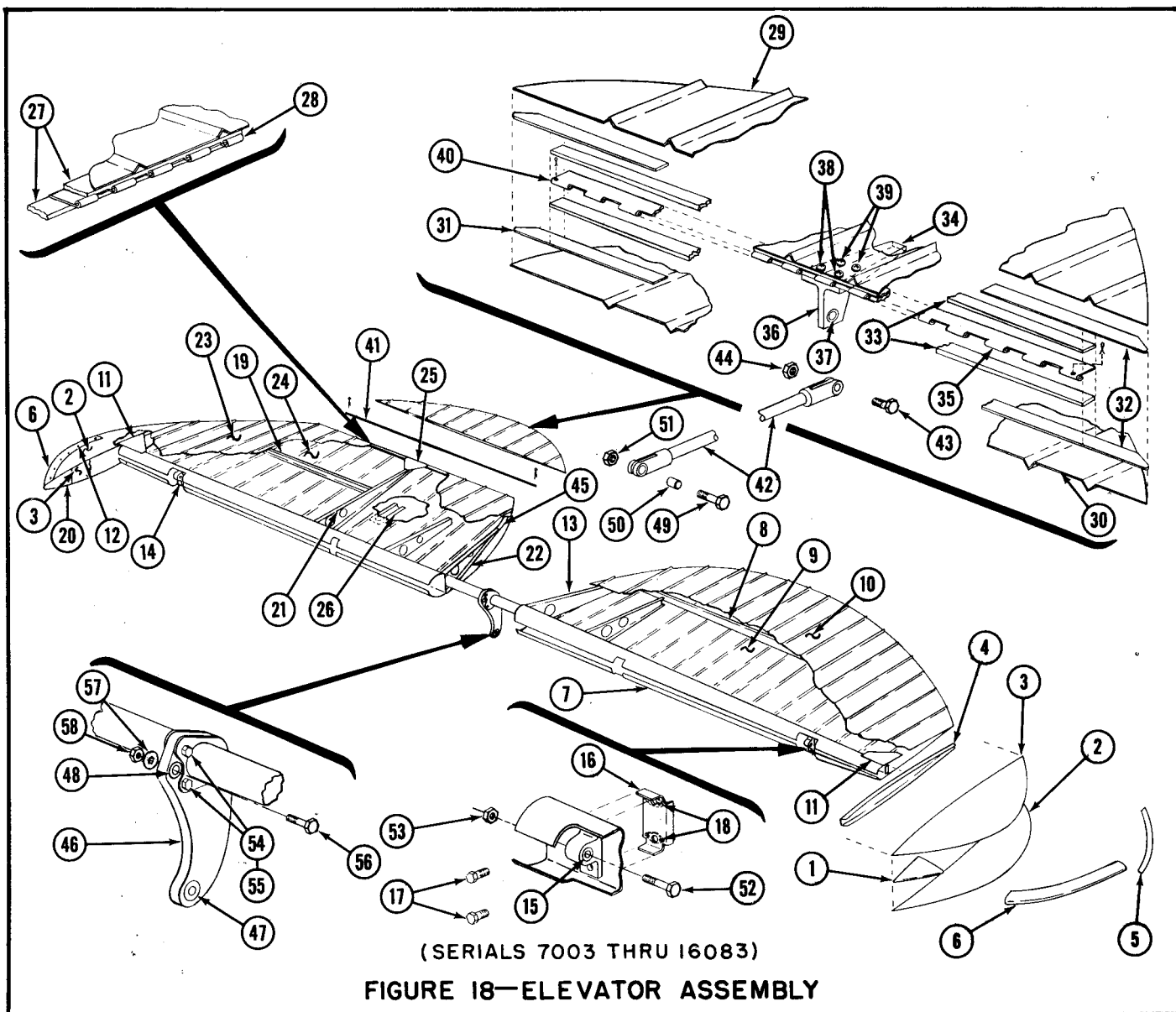


FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0334200	Elevator Assembly - Left (see figure 1 for NHA)	Ref	Ref
	0334200 CP	Elevator Assembly - Left (corrosion proofed)	1	1
	0334200-11	Tip Assembly - Elevator left	1	1
18-1	0334218-1	Weight - Elevator tip left	1	1
	0334200-12	Tip Assembly - Elevator left (less 0334218-1 weight)	1	1
-2	0334200-5	Skin - Elevator tip lower left	1	1
-3	0334200-6	Skin - Elevator tip upper left	1	1
-4	0334213	Rib - Elevator tip	1	1
-5	0334214	Stiffener - Elevator tip rear	1	1
-6	0334215	Leading Edge - Elevator tip	1	1
-7	0334220-13	Spar - Elevator front	1	1
-8	0334212	Auxiliary Spar - Elevator rear left	1	1
-9	0334200-3	Skin - Elevator lower left	1	1
-10	0334200-4	Skin - Elevator upper left	1	1
-11	0334220	Plate - Elevator tip doubler	1	1
-12	NAS445-163-4-8	Rivet - Cherry (attach tip leading edge)	14	14
-13	0334206	Rib And Torque Tube Assembly - Elevator left	1	1
	P4C	Rivet - (Attach torque tube assembly)	3	3
-14	0334111	Hinge Assembly - Elevator outboard	1	1



ILLUSTRATED PARTS CATALOG

FIGURE 18

ELEVATOR ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
18-15	AR4-1	Bearing	1	1
-16	0334122	Channel - Outboard hinge (Eff. serials 7003 to 7480 except 7475)	1	1
	0334221	Channel - Outboard hinge (Eff. serials 7475, 7480 & on)	1	1
-17	AN3-4A	Bolt - (Attach hinge)	2	2
-18	AN366F1032	Nutplate	2	2
	0334100	Elevator Assembly - Right (see figure 1 for NHA)	Ref	Ref
	0334100 CP	Elevator Assembly - Right (corrosion proofed)	1	1
	0334100-13	Primary Assembly - Elevator right (less 0334218-2 weight)	1	1
	0334100-8	Primary Assembly - Elevator right	1	1
-7	0334120	Spar - Elevator front	1	1
-19	0334121	Auxiliary Spar - Elevator rear right	1	1
	0334100-11	Tip Assembly - Elevator right	1	1
-2	0334200-5	Skin - Elevator tip upper right	1	1
-3	0334200-6	Skin - Elevator tip lower right	1	1
-4	0334213	Rib - Elevator tip	1	1
-6	0334215	Leading Edge - Elevator tip	1	1
-5	0334214	Stiffener - Elevator tip rear	1	1
-20	0334218-2	Weight - Elevator tip right	1	1
	NAS455-163-4-8	Rivet - (Attach tip leading edge)	20	20
-11	0334220	Plate - Elevator tip doubler	1	1
-14	0334111	Hinge Assembly - Elevator outboard	1	1
-15	AR4-1	Bearing - (Torrington)	1	1
-16	0334122	Channel - Elevator outboard hinge (Eff. serials 7003 thru 7479 except 7475)	1	1
	0334221	Channel - Elevator outboard hinge (Eff. serials 7475, 7480 & on)	1	1
-17	AN3-4A	Bolt - (Attach hinge)	2	2
-18	AN366F1032	Nutplate	2	2
-21	0334113	Rib - Elevator center	1	1
-22	0334106	Rib And Torque Tube Assembly - Elevator right	1	1
-23	0334100-5	Skin - Elevator upper right	1	1
-24	0334100-6	Skin - Elevator lower right	1	1
-25	0334100-20	Reinforcement - Elevator skin	2	2
-26	0334126	Cover - Elevator tab push-pull tube	1	1
-27	0334114	Spacer - Elevator tab hinge	2	2
-28	0334100-10	Hinge Half - Elevator tab	1	1
	0334100-7	Tab Assembly - Elevator right	1	1
-29	0334100-3	Skin - Elevator tab upper	1	1
-30	0334100-4	Skin - Elevator tab lower	1	1
-31	0334117	Stiffener - Elevator tab outboard	2	2
-32	0334118	Stiffener - Elevator tab inboard	2	2
-33	0334116	Spacer - Elevator tab hinge	2	2
-34	0334119	Spacer - Elevator tab horn	1	1
-35	0334100-9	Hinge Half - Elevator tab	1	1
-36	0334125	Horn Assembly - Elevator tab control (Eff. serials 7003 thru 7422)	1	1
-37	0334123	Bushing - Tab control horn (Eff. serials 7003 thru 7422)	1	1
	0334125-2	Horn Assembly - Elevator tab control (Eff. serials 7323 & on)	1	1
	PN-3-A	Bearing - Tab control horn (Eff. serials 7323 & on)	1	1
-38	AN526-832R16	Screw - (Attach elevator tab control horn front)	2	2
-39	AN526-832R14	Screw - (Attach elevator tab control horn rear)	2	2
	AN365-1032	Nut	4	4
-40	AN380-1-2	Pin - Cotter (tab hinge pin)	2	2
-41	AN253-2-28125	Pin - Tab hinge	1	1
-42	0334109	Tube - Tab push-pull (Eff. serials 7003 thru 7422)	1	1
	0334109-2	Tube - Tab push-pull (Eff. serials 7423 & on)	1	1
-43	AN3-7A	Bolt - (Attach push-pull tube to tab horn)	1	1
-44	AN365-428	Nut	1	1
-45	0334100-21	Stiffener - Elevator inboard trailing edge (Eff. serials 7402 & on)	1	1
-46	0310262	Pylon Assembly - Elevator	1	1
-47	KS4	Bearing - (Fafnir)	1	1
-48	AR4-1	Bearing - (Torrington)	1	1
-49	AN3-7Z	Bolt - (Attach push-pull tube to actuator)	1	1
-50	0334124	Bushing - Tab push tube (Eff. serial 7423 & on)	1	1
-51	AN365-428	Nut - (Eff. serial 7003 thru 7422)	1	1
	AN365-1032	Nut - (Eff. serial 7323 & on)	1	1
-52	AN4-11A	Bolt - (Attach elevator at outboard hinge)	2	2
-53	AN365-428	Nut	2	2
-54	AN3-10A	Bolt	4	4
-55	AN960-416	Washer	4	4
-56	AN4-11A	Bolt	1	1
-57	AN960-416L	Washer	1	1
-58	AN365-428	Nut	5	5

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

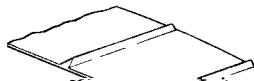


ILLUSTRATED PARTS CATALOG

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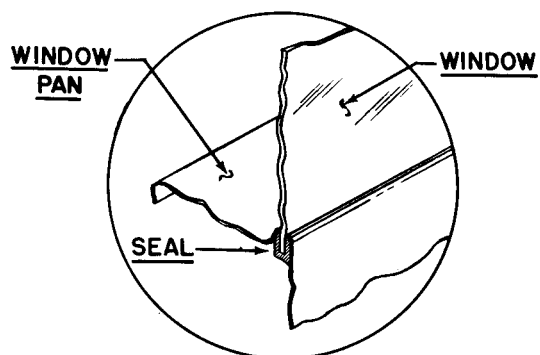


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SERIAL NUMBER AND COLOR IF APPLICABLE



TYPICAL INSTALLATION

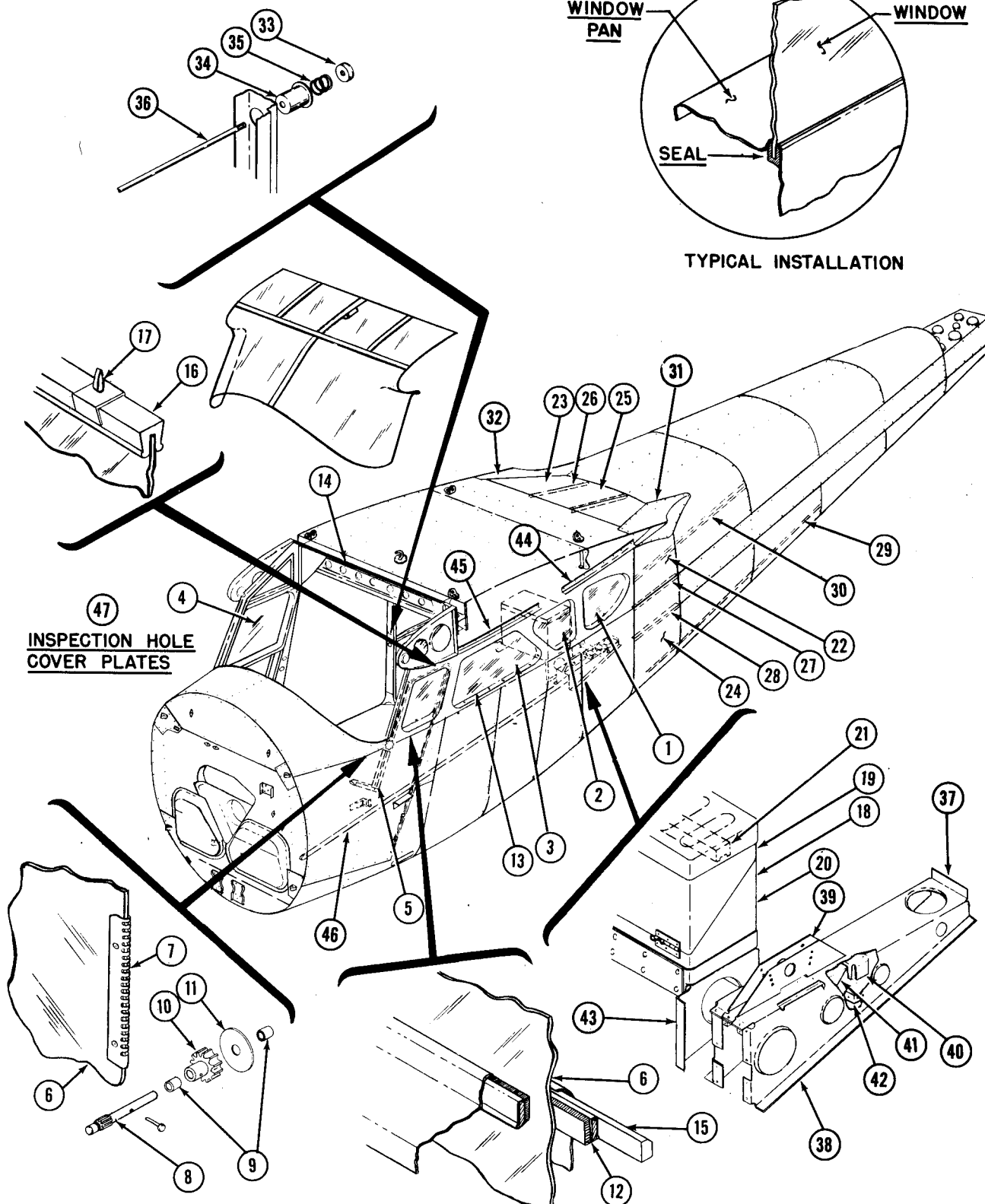


FIGURE 19—FUSELAGE ASSEMBLY



ILLUSTRATED PARTS CATALOG

FIGURE 19

FUSELAGE ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0391000	Fuselage Assembly - Complete	Ref	Ref
	0311204	Cabin Door Assembly - (See figure 39)	1	1
	AN4-15A	Bolt - Door upper hinge attachment	1	1
	AN4-10A	Bolt - Door lower hinge attachment	1	1
	AN960-416	Washer - Door lower hinge	1	1
	AN365-428	Nut	2	2
	0311323	Baggage Door Assembly (see figure 38)	1	1
	AN3-14	Bolt - Baggage door hinge attachment	2	2
	AN960-10	Washer	4	4
	AN320-3	Nut	2	2
	AN380-2-3	Pin - Cotter	2	2
19-1	0311001-23	Window - #1 cabin rear	2	2
	0311237	Part - Rear window left	1	1
	0311237-1	Part - Rear window right	1	1
	PK74XZ-6-6	Screw - (Attach window pan)	16	16
	0311001-16	Seal - Rubber channel (3/8 x 3/16 doortite 46" long approx.)	1	1
-2	0311001-22	Window - #2 cabin	2	2
	0311238	Part - Rear center window left	1	1
	0311238-1	Part - Rear center window right	1	1
	PK74XZ-6-6	Screw - (Attach window pan)	14	14
	0311001-18	Seal - Rubber channel (3/8 x 3/16 doortite 39" long approx.)	1	1
-3	0311001-21	Window - #3 cabin left	1	1
	0311239	Part - Left center front window	1	1
	PK74XZ-6-6	Screw - (Attach window frame)	10	10
	0311001-17	Seal - Rubber channel (doortite 55" long approx.)	1	1
-4	0311001-20	Window - Co pilot	1	1
	0311266	Part - Co-pilot window	1	1
	PK74XZ-6-6	Screw - (Attach window pan)	7	7
	0311001-15	Seal - Rubber channel (3/8 x 3/16 doortite 47" long approx.)	1	1
	0391000-1	Fuselage Assembly - (Includes wiring and windshield)	1	1
	0310005	Wiring Installation (see figure 77 for breakdown)	1	1
	No Number	Windshield Installation (see figure 26 for breakdown)	1	1
-5	0311719	Bracket Assembly - Pilot's window	1	1
-6	0311245	Window Assembly - Pilot	1	1
-7	0311249	Rack - Pilot window gear	1	1
-8	0311246-3	Shaft - Pilot window mechanism	1	1
-9	NAS43DD-6-16	Spacer	2	2
-10	0311253	Gear - Pilot's window mechanism	1	1
-11	AN970-6	Washer	1	1
-12	0311001-32	Weatherstrip - (M7 Standard Rubber Co. 40" long approx.)	1	1
-13	1144	Screw - (Attach window pan)	8	8
	C192	Washer	8	8
-14	0311001-13	Seal - (Electricians tape Dutch Brand 30" long approx.)	1	1
		(see figure 26)		
-15	0311001-29	Shim - Pilot's window lower	1	1
	0311001-28	Shim - Pilot's window forward	1	1
	0311001-30	Shim - Pilot's window rear	1	1
	0311001-31	Shim - Pilot's window upper rear	1	1
-16	0311001-24	Channel - Window (AU VE Co. #4909 72" long approx.)	1	1
-17	49020F26	Fastener - (United Carr #4920)	5	5
-18	0412146	Box Assembly - Battery	1	1
-19	0412147	Box Assembly - Upper	1	1
-20	0412148	Box Assembly - Lower	1	1
	AN415-2	Pin - Lock	2	2
-21	0413279	Spacer - Battery box upper	1	1
	0391000-2	Fuselage Assembly - Bare	1	1
	0311000-60	Structure Assembly - Forward fuselage assembly (see figure 20 for breakdown)	1	1
	0311000-64	Structure Assembly - Fuselage front section (see figure 21 for breakdown)	1	1
	0391200	Aft Section Assembly - Fuselage (see figure 23 for breakdown)	1	1
-22	0310000-2	Skin - Fuselage splice upper left (Sta. 102.0 to 120.375)	1	1
-23	0310000-3	Skin - Fuselage splice upper right (Sta. 102.0 to 120.375)	1	1
-24	0310000-4	Skin - Fuselage splice lower (Sta. 102.0 to 120.375)	1	1
-25	0310000-9	Skin - Fuselage splice top (Sta. 102.0 to 120.375)	1	1
-26	0310000-11	Angle - Fuselage splice reinforcement top	2	2
-27	0310000-6	Angle - Fuselage splice reinforcement center left	1	1
	0310000-10	Angle - Fuselage splice reinforcement center right	1	1
-28	0310000-7	Angle - Fuselage splice reinforcement center left	1	1
	0310000-12	Angle - Fuselage splice reinforcement center right	1	1
-29	0310000-8	Angle - Fuselage splice reinforcement lower left	1	1
	0310000-13	Angle - Fuselage splice reinforcement lower right	1	1
-30	0310000-5	Angle - Fuselage splice reinforcement upper left	1	1
	0310000-15	Angle - Fuselage splice reinforcement upper right	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 19

FUSELAGE ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
19-31	0311430	Fillet Assembly - Wing trailing edge left (Eff. serials 7003 thru 7574)							1	1
	0311420	Fillet Assembly - Wing trailing edge left (Eff. serials 7575 & on)							1	1
-32	0311430-1	Fillet Assembly - Wing trailing edge right (Eff. serials 7003 thru 7574)							1	1
	0311420-1	Fillet Assembly - Wing trailing edge right (Eff. serials 7575 & on)							1	1
-33	0311416	Button - Baggage door latch							1	1
-34	0311417	Retainer - Baggage door latch spring							1	1
-35	0311415	Spring - Baggage door latch							1	1
-36	0311414	Rod Assembly - Baggage door latch							1	1
-37	0310181	Bracket Assembly - Elevator bellcrank forward							1	1
-38	0310178	Bracket - Elevator bellcrank forward							1	1
-39	0310182	Stop - Elevator bellcrank forward							1	1
-40	0310180	Stiffener - Elevator bellcrank forward							1	1
-41	0310179	Stiffener - Elevator bellcrank forward left							1	1
	0310179-1	Stiffener - Elevator bellcrank forward right							1	1
-42	0311331	Bracket - Clip attachment (Eff. serials 7003 thru 7149)							1	1
	AN3-5A	Bolt - (Attach stop)							1	1
	AN365-1032	Nut							1	1
-43	0311329	Bracket - Battery box							1	1
-44	0311356-5	Angle - Rear fairing attachment left							1	1
	0311356-7	Angle - Rear fairing attachment right							1	1
-45	0311356-3	Angle - Front fairing attachment left							1	1
	0311356-6	Angle - Front fairing attachment right							1	1
-46	0310188	Tube Assembly - Elevator control (see figure 70)							1	1
-47	0311517	Plate - Center section floorboard inspection							1	1
	0311516	Plate - Front section floorboard inspection							3	3
	0353111	Grommet Installation - Firewall (see figure 24)							1	1

FIGURE 20

FUSELAGE - FORWARD SECTION

	0311000-60	Structure Assembly - Forward fuselage (see figure 19 for NHA)							Ref	Ref
	0311000-59	Structure Assembly - Front fuselage section (see figure 21 for breakdown)								
20-1	0311140-50	Panel Assembly - Floorboard center left							1	1
-2	0311715-3	Runner - Outboard seat							1	1
-3	0300715-4	Runner - Inboard seat							1	1
-4	NAS444-5-3	Nutplate - (Tinnerman A6195-8Z-3)							6	6
-5	0311140-52	Panel Assembly - Floorboard center right							1	1
-6	0311715-3	Runner - Outboard seat							1	1
-7	0311715-4	Runner - Inboard seat							1	1
-8	NAS444-5-3	Nut - (Tinnerman A6195-8Z-3)							6	6
-9	0311443	Bracket - Step pulley							1	1
-10	0311443-5	Bracket - Step pulley							1	1
	0311443-3	Bracket - Upper half							1	1
	0311443-4	Bracket - Lower half							1	1
-11	0311140-54	Panel Assembly - Floorboard rear left							1	1
-12	0311140-53	Panel Assembly - Floorboard rear right							1	1
-13	0311140-7	Plate - Floorboard rear center							1	1
-14	0311765	Doubler - Floorboard cutout (see figure 64)							1	1
-15	0311140-23	Stiffener - Floorboard cutout (see figure 64)							1	1
-16	0311140-24	Stiffener - Floorboard cutout (see figure 64)							1	1
-17	0311140-25	Stiffener - Floorboard cutout (see figure 64)							1	1
	0311752-2	Bracket - Heater valve mounting (see figure 64)							1	1
	0311752-9	Bracket - Heater support (see figure 64)							1	1
	0311752-15	Bracket Assembly - Tab pulley (see figure 64)							1	1
	0311752-20	Duct - Air inlet heater (see figure 64)							1	1
	0311144	Bulkhead - Fuselage forward section (Sta. 50.00)							1	1
	NAS444-5-3	Nut - (Tinnerman A6195-8Z-3)							2	2
	0311147	Bulkhead Assembly - Forward section (Sta. 65.1875)							1	1
	NAS444-5-3	Nutplate - (Tinnerman A6195-8Z-3)							2	2
	AN366F1032	Nutplate							3	3
	0311163	Bulkhead Assembly - Fuselage forward section (Sta. 81.281)							1	1
	0311475	Lug - Window glass retainer							4	4
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)							4	4
	0311332	Clip - Clamp mounting							1	1
	NAS444-5-3	Nutplate - (Tinnerman A6191-8Z-3)							2	2

SERIAL NUMBER AND COLOR IF APPLICABLE

ORDER BY PART NUMBER AND NAME

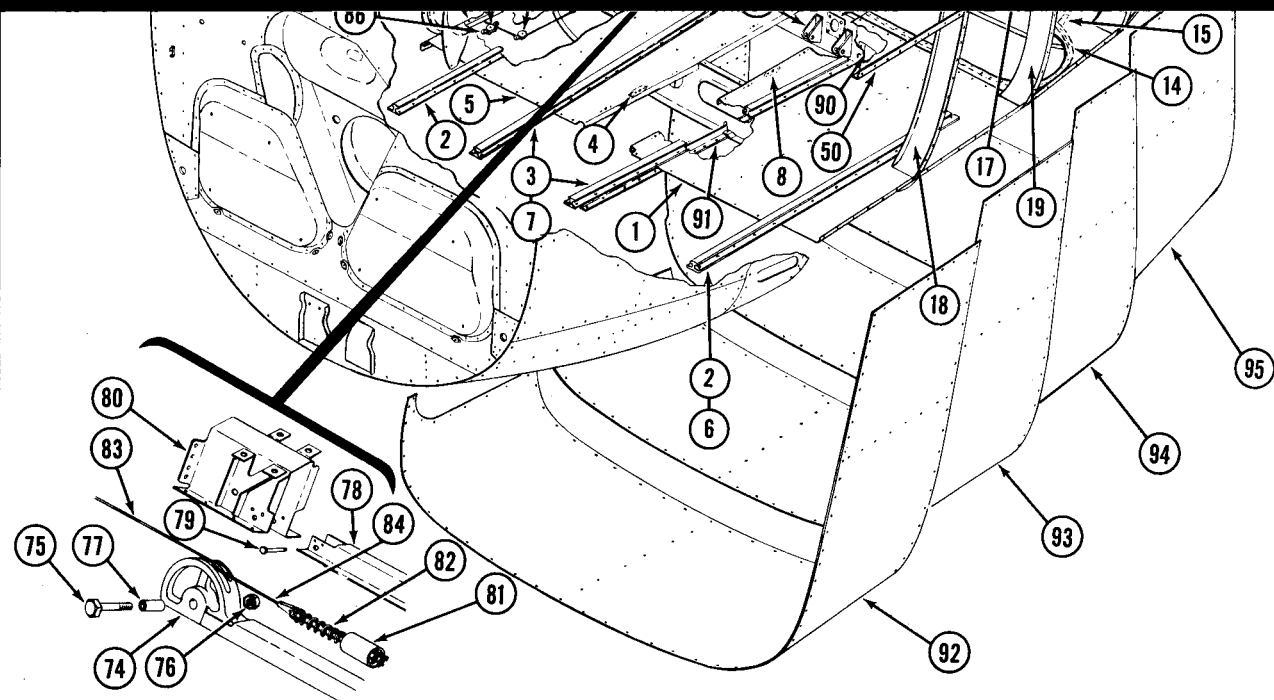


FIGURE 20— FORWARD SECTION— FUSELAGE

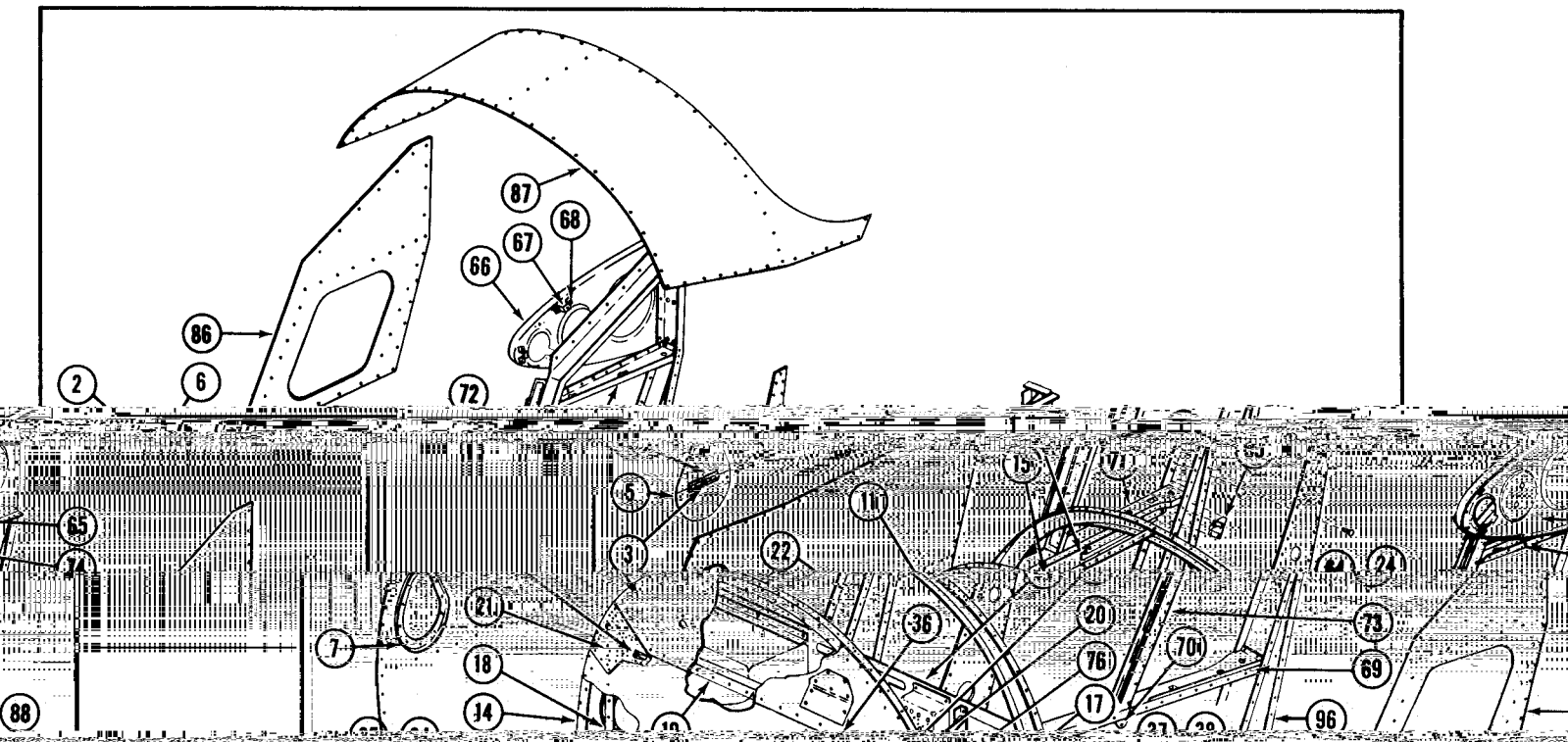
FIGURE 20

FUSELAGE - FORWARD SECTION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	AN366F1032	Nutplate	2	2
	AN366F428	Nutplate	2	2
	0311163-11	Bracket - Rear spar attachment	2	2
20-22	0311125	Bulkhead Assembly - Forward fuselage section (Sta. 102.00)	1	1
-23	0310260	Stiffener - Bulkhead vertical (Sta. 102.00)	1	1
	AN366F832	Nutplate	2	2
	AN366F428	Nutplate	4	4
-24	0311124	Channel Assembly - Cabin window left front	1	1
-25	0311475	Lug - Window glass retainer	2	2
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)	2	2
-26	0311227	Channel Assembly - Left center window	1	1
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)	5	5
-27	0311115	Frame Assembly - Left cabin window	1	1
-28	0311115-8	Bracket - Left cabin window frame attachment	1	1
-29	0311118	Channel Assembly - Cabin window left	1	1
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)	6	6
	AN366F1032	Nutplate	1	1
-30	0311115-1	Frame Assembly - Right rear cabin window	1	1
-31	0311120	Channel Assembly - Cabin window right	1	1
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)	1	1
-32	0311169	Channel Assembly - Cabin window left	1	1
	NAS395-6-3	Nut - (Tinnerman A1784-6Z-3)	4	4
	0311332	Clip - Clamp mounting	1	1
-33	0311209	Spar - Fuselage front	1	1
-34	0311108	Plate - Fuselage front spar	4	4
-35	0311286	Angle - Skin attachment left	1	1
-36	NAS178-12-49	Rivet - Hi-shear	18	19
-37	NAS178-12-48	Rivet - Hi-shear	12	12
NAS178-12-51	Rivet - Hi-shear			
Collar - Rivet				
Spar Assembly - Rear				
Rivet - Hi-shear				
Collar - Rivet				
Rivet - Hi-shear				
Collar - Rivet				
Rivet - Hi-shear				
Collar - Rivet				
Bolt - (Attach spar to				
Nut				
Headliner - Cabin top				
Headliner Assembly - C				
Clip - Clamp mount				
Headliner - Cabin top				
Headliner - Cabin (Sta				
Stringer - Cabin top forward right				
Stringer - Cabin top rear left				
Stringer - Cabin top rear right				

	0353000-3	Firewall Assembly	1	1
-9	0353000-32	Sheet - Firewall lower	1	1
-10	0353000-4	Sheet - Firewall center	1	1

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 21

FUSELAGE - FRONT SECTION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
21-11	0353000-31				Sheet	- Firewall upper		1	1
-12	0353000-5				Ring	- Firewall lower		1	1
-13	0353000-29				Ring	- Firewall left		1	1
-14	0353000-27				Ring	- Firewall right		1	1
-15	0353000-6				Ring	- Firewall upper		1	1
-16	0353000-16				Splice	- Firewall ring		4	4
-17	0353000-8				Stiffener	- Firewall left		1	1
-18	0353000-9				Stiffener	- Firewall right		1	1
-19	0353000-14				Stiffener	- Firewall upper		1	1
-20	0353000-15				Reinforcement	- Engine mount attachment upper left		1	1
-21	0353000-26				Reinforcement	- Engine mount attachment upper right		1	1
-22	0350250				Bracket	- Engine service support attachment		1	1
-23	0353000-17				Reinforcement	- Engine mount attachment lower		2	2
-24	0311338				Stiffener	- Firewall fittings		1	1
-25	0353000-10				Pan	- Firewall upper		1	1
-26	0353000-19				Cup	- Firewall		1	1
-27	0353000-11				Pan	- Firewall lower left		1	1
-28	0353000-12				Pan	- Firewall lower right (Eff. serials 7003 thru 7362 except 7273)		1	1
-29	0353000-34				Pan	- Firewall lower right (Eff. serials 7273 & 7363 & on)		1	1
-30	0353000-33				Pan	- Vacuum pump		1	1
-31	NAS444-5				Nut	- (Tinnerman A6195-8Z-3)		6	6
-32	0311337				Bracket	- Firewall accessory mount left		1	1
-33	0311799				Bracket	- Firewall accessory mount right		1	1
-34	0350273-3				Angle	- Punch		1	1
-35	0350273-4				Punch	- Engine mount attachment bolt		1	1
-36	AN366F428				Nut	- Non-countersunk		1	1
-37	0311151				Bulkhead Assembly	- Fuselage (Sta. 13.281) (Eff. serials 7003 thru 7349)		1	1
-38	0311151-13				Bulkhead Assembly	- Fuselage (Sta. 13.281) (Eff. serials 7350 and on)		1	1
	AN366DF-1032				Nutplate			2	2
-39	0310231				Bracket Assembly	- Control lock (See figure 76 for breakdown)		1	1
	AN3-4A				Bolt			2	2
	0310253				Bracket	- Parking brake conduit		1	1
-40	0310208				Cable Assembly	- Parking brake left (see figure 76)		1	1
	0310208-1				Cable Assembly	- Parking brake right (see figure 76)		1	1
	0310209				Bracket	- Rudder pedal return spring		2	2
-41	0311327				Mount Assembly	- Control Y (Eff. serials 7003 thru 7393 except 7385)		1	1
	0310435				Mount Assembly	- Control Y (Eff. serials 7385, 7394 thru 7586)		1	1
	0310435-3				Mount Assembly	- Control Y (Eff. serials 7587 & on)		1	1
-42	0311296				Bulkhead	- Control column mount left		1	1
-43	0311296-1				Bulkhead	- Control column mount right		1	1
	0311294				Brace	- Control column support left		1	1
-44	0311294-1				Brace	- Control column support right		1	1
-45	0311295				Bracket	- Control column mount left		1	1
-46	0311326				Bracket	- Control column mount right (Eff. serials 7003 thru 7393 except 7385)		1	1
	0311295-1				Bracket	- Control column mount right (Eff. serials 7385, 7394 & on)		1	1
-47	0311297				Guard	- Control column cables (Eff. serials 7003 thru 7393 except 7385)		1	1
	0310436				Guard	- Control column cables (Eff. serials 7385, 7394 thru 7586)		1	1
	0311874				Guard	- Control column cables (Eff. serials 7587 & on)		1	1
-48	0311140-4				Panel	- Floorboard landing gear bulkhead		1	1
-49	0311140-52				Panel Assembly	- Front floorboard		1	1
	0311332				Bracket	- (Attach cabin ventilator door control)		1	1
	NAS444-5				Nut	- (Tinnerman A6195-8Z-3)		4	4
	NAS395-13-3				Nut	- (Tinnerman A6077-8Z-3)		2	2
-50	0311350				Door Assembly	- Cabin ventilator (see figure 46)		1	1
-51	0311350-10				Skin	- Cabin ventilator door		1	1
-52	0311350-5				Stiffener	- Cabin vent door front		1	1
-53	0311350-13				Stiffener	- Cabin vent door rear		1	1
-54	0311350-3				Former	- Cabin vent door left		1	1
-55	0311350-4				Former	- Cabin vent door right		1	1
-56	0311350-7				Bracket	- Cabin vent door hinge outer		1	1
-57	0311350-6				Bracket	- Cabin vent door hinge inner		1	1
	AN392-7				Pin	- Flat head		2	2
	AN960-A6				Washer			2	2
-58	0311349				Bracket	- Cabin ventilator door left		1	1
	0311349-1				Bracket	- Cabin ventilator door right		1	1
-59	0311288-1				Bulkhead	- Rudder bar co-pilot left		1	1
-60	0311288-4				Bulkhead	- Rudder bar co-pilot right		1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 21

FUSELAGE - FRONT SECTION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
21-61	0311288-3						Bulkhead - Rudder bar pilot left	1	1
-62	0311288-4						Bulkhead - Rudder bar pilot right	1	1
-63	S5-200						Spring Fastener - Dzus	11	11
-64	0311480						Panel - Stationary Instrument (Eff. serials 7003 thru 7349) (see figure 44)	1	1
	0311808						Panel - Stationary Instrument (Eff. serials 7358 & on) (see figure 44 for breakdown)	1	1
-65	0311243						Rib Assembly - Wing root front left	1	1
-66	0311243-1						Rib Assembly - Wing root front right	1	1
-67	0311243-5						Lug - Upholstery panel attachment	2	2
	NAS395-14-3						Nut - (Tinnerman A1274-8Z-3)	2	2
-68	NAS444-5-3						Nut - (Tinnerman A6195-8Z-3)	2	2
-69	0311123						Stringer Assembly - Bulkhead left (Sta. 13.281 to 28.375)	1	1
	NAS444-4-3						Nut - (Tinnerman A6191-8Z-3)	2	2
	0311123-3						Stringer - Bulkhead (Sta. 13.281 to 28.375)	1	1
-70	0311123-4						Bracket - Pilot window crank	1	1
-71	0311197						Stringer Assembly - Bulkhead right (Sta. 13.281 to 28.375)	1	1
	0311197-3						Stringer Assembly - Bulkhead right (Sta. 13.281 to 28.375)	1	1
	NAS395-6-3						Nut - (Tinnerman A1784-6Z-3)	1	1
-72	0311233						Bracket - Door hinge upper	1	1
-73	0311122						Frame Assembly - Pilot window	1	1
	NAS444-1-3						Nut - (Tinnerman A6191-6Z-3)	2	2
	0311122-1						Frame Assembly - Co-pilot window	1	1
	NAS444-1-3						Nut - (Tinnerman A6195-6Z-3)	1	1
-74	0311170						Stringer Assembly - Pilot window	1	1
	NAS395-6-3						Nut - (Tinnerman A1784-6Z-3)	2	2
-75	0311278						Stringer Assembly - Co-pilot window	1	1
	NAS395-6-3						Nut - (Tinnerman A1784-6Z-3)	2	2
	0311000-19						Electricians Tape - Dutch brand 3/4" length 35" (195 only)	2	2
-76	0311236						Stringer Assembly - Engine mount upper left	1	1
	0311236-1						Stringer Assembly - Engine mount upper right	1	1
-77	0311000-20						Stiffener - Fuselage skin side (Sta. 0.00 to 13.281)	2	2
-78	0311255-15						Stringer Assembly - Engine mount lower left	1	1
	0311255-16						Stringer Assembly - Engine mount lower right	1	1
-79	0311000-30						Stiffener - Fuselage skin lower (Sta. 0.00 to 13.281)	2	2
-80	0311000-18						Stiffener - Fuselage skin side (Sta. 13.281 to 28.375)	2	2
-81	0311000-4						Stiffener - Landing gear bulkhead skin left	1	1
	0311000-31						Stiffener - Landing gear bulkhead skin right	1	1
-82	0311257						Support - Floorboard left	1	1
	0311257-1						Support - Floorboard right	1	1
-83	0311000-29						Stringer - Fuselage skin lower (Sta. 0.00 to 28.375)	2	2
-84	0311599						Bracket - Fuel selector valve	1	1
-85	0311000-25						Skin - Fuselage front section right	1	1
-86	0311000-33						Skin - Co-pilot window right	1	1
-87	0311000-13						Skin - Fuselage front section upper	1	1
-88	0311000-14						Skin - Pilot window left	1	1
-89	0311000-15						Skin - Fuselage front section left	1	1
-90	0311000-140						Skin - Landing gear cover lower	1	1
-91	0311364						Doubler - Landing gear skin	1	1
-92	NAS451-33						Plug Button - Landing gear skin	1	1
-93	0311000-24						Skin - Fuselage front section lower	1	1
-94	0311271						Stiffener - Cabin ventilators	1	1
-95	0311763						Bracket - Door stop	1	1
-96	0311206-12						Section Assembly - Landing Gear doorpost (see figure 22 for breakdown)	1	1

FIGURE 22

BULKHEAD ASSEMBLY - LANDING GEAR

	0311206-12	Section Assembly - Landing gear bulkhead (see figure 21 for NHA)	1	1
22-1	0311156-6	Bulkhead Assembly - Door post front	1	1
-2	0311475	Clip - Nutplate	2	2
-3	0311156-7	Bulkhead Assembly - Door post front	1	1
-4	0311230	Stiffener - Upper door hinge	1	1
-5	0311475	Clip - Nutplate	1	1
-6	0311130-6	Bulkhead Assembly - Door post rear	1	1
-7	NAS395-6-3	Nutplate - (Tinnerman A1784-6Z-3)	2	2
-8	0311130-7	Bulkhead Assembly - Door post rear	1	1
-9	0311231	Stiffener - Landing gear bulkhead door hinge lower	1	1
-10	0311287	Stiffener - Landing gear bulkhead door hinge upper	1	1
-11	0311267-3	Splice - Landing gear bulkhead	1	1
-12	0311267-4	Splice - Landing gear bulkhead	1	1
-13	0311267-5	Splice - Landing gear bulkhead left	1	1
-14	0311267-9	Splice - Landing gear bulkhead right	1	1
-15	0311332	Clip - Fuel line support	2	2
-16	0311206-9	Bulkhead Assembly - Landing gear support	1	1

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FIGURE 22

BULKHEAD ASSEMBLY - LANDING GEAR (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
-17	0311156-11	Bulkhead - Landing gear support lower forward	1	1
-18	0311218-3	Angle - Landing gear bulkhead support lower forward	1	1
	0311218	Angle - Landing gear bulkhead support upper rear (ser 7628 & on)	1	1
-19	0311216	Stiffener - Landing gear bulkhead support upper forward	1	1
-20	0311130-5	Bulkhead - Landing gear support lower rear	1	1
-21	0311219	Angle - Landing gear bulkhead support lower rear	1	1
-22	0311217	Stiffener - Landing gear bulkhead support upper rear	1	1
	NAS444-2-3	Nutplate - (Tinnerman A6195-6Z-3)	2	2
-23	0311208	Support Assembly - Landing gear left	1	1
-24	0311208-3	Support Assembly - Landing gear right	1	1
-25	0310233	Bracket - Control pulley	2	2
	AN520-10-8	Screw - (Attach bracket)	2	2
	AN365-1032	Nut	2	2
-26	NAS178-6-4	Rivet - Hi-shear	60	60
	NAS179-6	Collar - Rivet	60	60
-27	NAS178-6-5	Rivet - Hi-shear	52	52
	NAS179-6	Collar - Rivet	52	52
-28	NAS178-6-6	Rivet - Hi-shear	4	4
	NAS179-6	Collar - Rivet	4	4
-29	0311234	Bracket - Door hinge lower	1	1

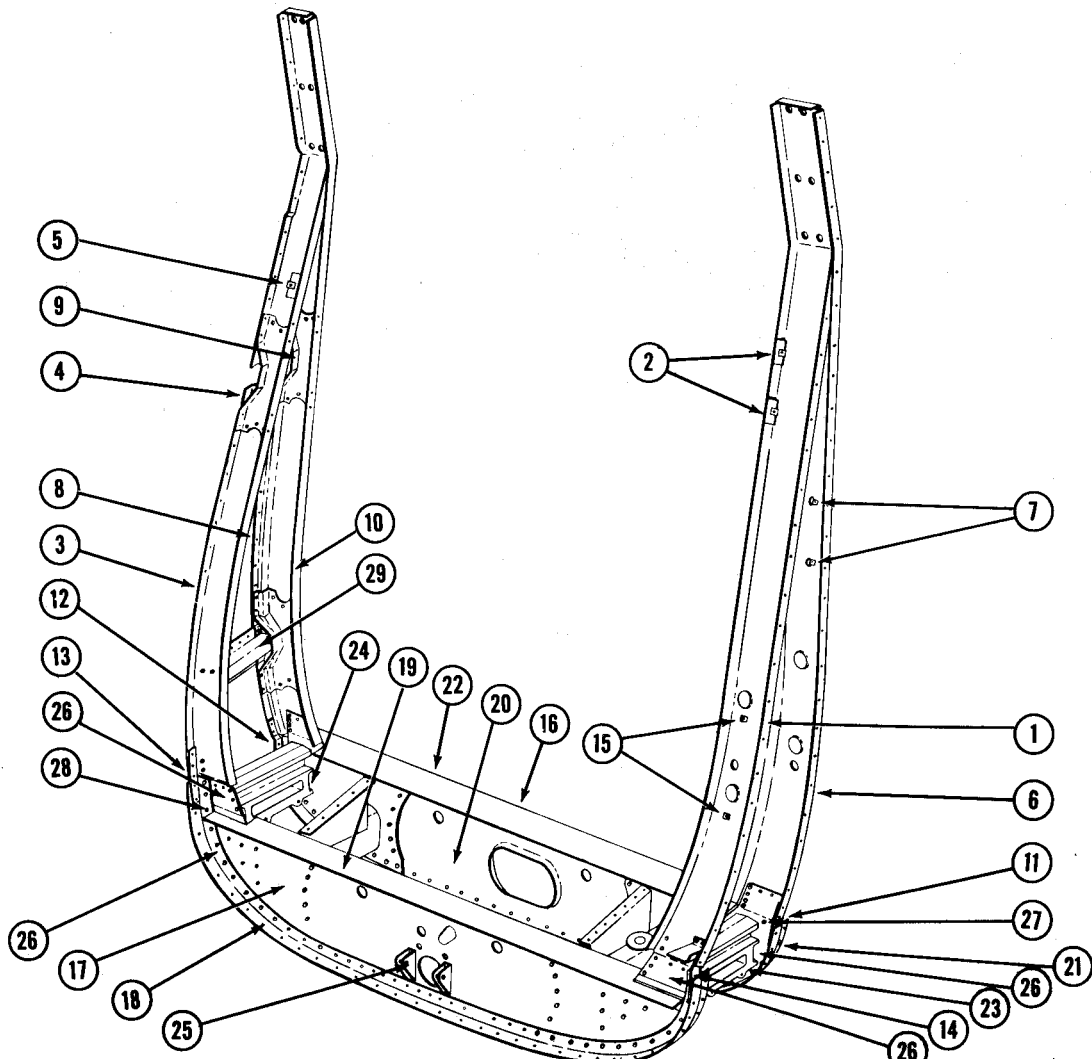


FIGURE 22-BULKHEAD ASSEMBLY-LANDING GEAR

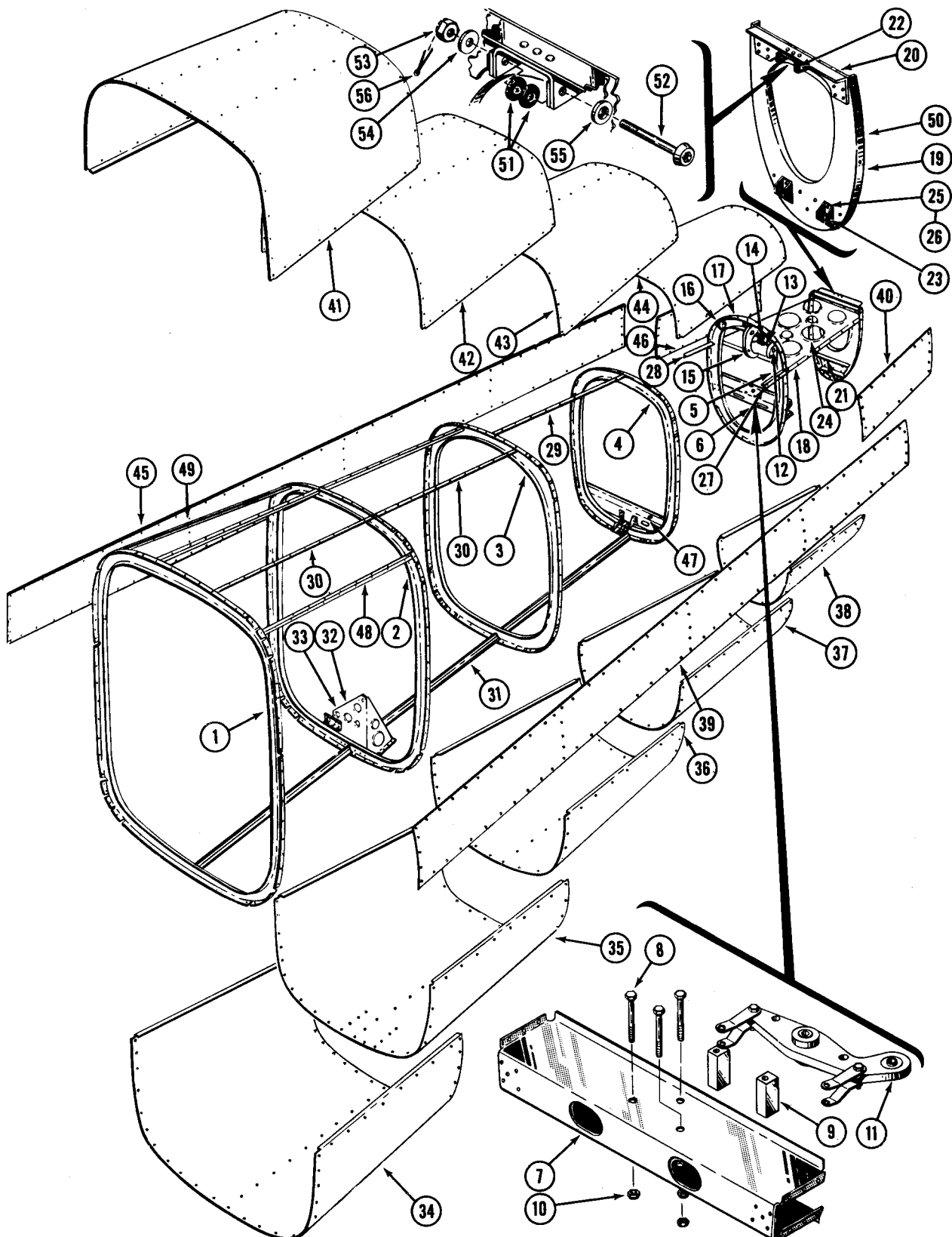


FIGURE 23-SECTION ASSEMBLY-FUSELAGE AFT

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FIGURE 23

SECTION ASSEMBLY - FUSELAGE AFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	0312000	Section Assembly - Fuselage aft (see figure 19 for NHA) (ser 7003-16083)	Ref	Ref
	0312000-32	Section Assembly - Fuselage aft (see figure 19 for NHA) (ser 16084 & on)		
23-1	0312122	Bulkhead - Fuselage aft section (Sta. 120.275)	1	1
-2	0312119	Bulkhead - Fuselage aft section (Sta. 150.375)	1	1
-3	0312116	Bulkhead - Fuselage aft section (Sta. 180.375)	1	1
-4	0312115	Bulkhead - Fuselage aft section (Sta. 210.375)	1	1
-5	0312112	Bulkhead Assembly - Fuselage aft section (Sta. 241.020) (serials 7003 thru 16083)	1	1
	0312112-9	Bulkhead Assembly - Fuselage aft section (Sta. 241.020) (ser 16084 & on)		1
-6	0310165	Bracket Assembly - Rudder bellcrank	1	1
-7	0310108	Bracket - Rudder bellcrank	1	1
-8	AN4-21A	Bolt - (Rudder bellcrank stop)	3	3
-9	0310194	Spacer - (Rudder bellcrank stop)	2	2
-10	AN365-428	Nut	3	3
-11	0310110	Bellcrank Assembly - Rudder (see figure 72)	1	1
-12	0310112	Bracket - Elevator bellcrank left	1	1
-13	0310114	Reinforcement - Rear fuselage bulkhead	1	1
-14	0310113	Bracket - Elevator tab control pulley	1	1
-15	0310166	Bracket	1	1
-16	0312112-5	Reinforcement - Bulkhead upper right	1	1
-17	0312112-3	Reinforcement - Bulkhead top	1	1
-18	0312128	Bulkhead - Horizontal (Sta. 241.02 to 264.00) (serials 7003 thru 16095)	1	1
	0312128-1	Bulkhead - Horizontal (Sta. 241.02 to 264.00) (serials 16096 & on)		1
-19	0312106	Bulkhead Assembly - Fuselage rear (see special spares assembly index No. 50)	1	1
-20	0312108	Angle - Fuselage rear bulkhead	1	1
-21	0312109	Channel - Canted bulkhead (Sta. 264.00)	1	1
-22	0312110	Channel - Elevator rear bellcrank right	2	2
-23	0312111	Channel	2	2
-24	NAS444-5	Nutplate - (Tinnerman A6195-8Z-3)	12	12
-25	AN3-5A	Bolt - (Attach channel 0312111)	4	4
-26	AN365-1032	Nut - (Attach channel 0312111)	4	4
-27	0312000-25	Reinforcement - Horizontal bulkhead left	1	1
-28	0312000-26	Reinforcement - Horizontal bulkhead right	1	1
-29	0312000-30	Stiffener - Dorsal fin attachment	1	1
-30	0312000-11	Reinforcement - Aft section upper left (Sta. 120.375 to 150.375)	4	4
-31	0312000-29	Reinforcement - Aft section lower center (Sta. 120.375 to 210.375)	1	1
-32	0310315	Bracket - Rudder and tab guide (Eff. serials 7003 thru 7393 except 7385)	1	1
-33	0310443	Bracket - Rudder and tab guide (Eff. serials 7394 & on)	1	1
-34	0312000-7	Skin - Aft section lower (Sta. 120.375 to 150.375)	1	1
-35	0312000-5	Skin - Aft section lower (Sta. 150.375 to 180.375)	1	1
-36	0312000-3	Skin - Aft section lower (Sta. 180.375 to 210.375)	1	1
-37	0312000-13	Skin - Aft section lower (Sta. 210.375 to 241.02)	1	1
-38	0312000-14	Skin - Aft section lower (Sta. 241.02 to 264.00)	1	1
-39	0312000-9	Splice Plate - Aft section front left	1	1
-40	0312137	Splice Plate - Aft section rear left (serials 7003 thru 16083)	1	1
	0312137-3	Splice Plate - Aft section front left (serials 16084 & on)		1
-41	0312000-8	Skin - Aft section upper (Sta. 120.375 to 150.375)	1	1
-42	0312000-6	Skin - Aft section upper (Sta. 150.375 to 180.375)	1	1
-43	0312000-4	Skin - Aft section upper (Sta. 180.375 to 210.375)	1	1
-44	0312000-12	Skin - Aft section upper (Sta. 210.375 to 241.02) (serials 7003 - 16083)	1	1
	0312000-33	Skin - Aft section upper (Sta. 241.02 to 264.00) (serials 16084 & on)		1
-45	0312000-10	Splice Plate - Aft section front right	1	1
-46	0312137-1	Splice Plate - Aft section rear right (serials 7003 thru 16083)	1	1
	0312137-4	Splice Plate - Aft section rear right (serials 16084 & on)		1
-47	0310446	Bracket - (Eff. serials 7394 & on)	1	1
-48	0312000-27	Reinforcement - Upper left (Sta. 120.375 to 150.375)	1	1
-49	0312000-28	Reinforcement - Upper right (Sta. 130.275 to 150.375)	1	1
	0312106-50	Spares Assembly - Fuselage bulkhead (Sta. 264.00)	1	1
-50	0312106	Bulkhead Assembly - Fuselage (Sta. 264.00) (not procurable as separate part)	1	1
-51	0342121-1	Washer - Tailwheel yoke (#80 Durometer natural rubber)	2	2
-52	NAS145A-48	Bolt - Internal wrenching	1	1
-53	AN310-5	Nut	1	1
-54	AN960-516L	Washer	1	1
-55	NAS143-5C	Washer	1	1
-56	AN380-2-2	Pin - Cotter	1	1

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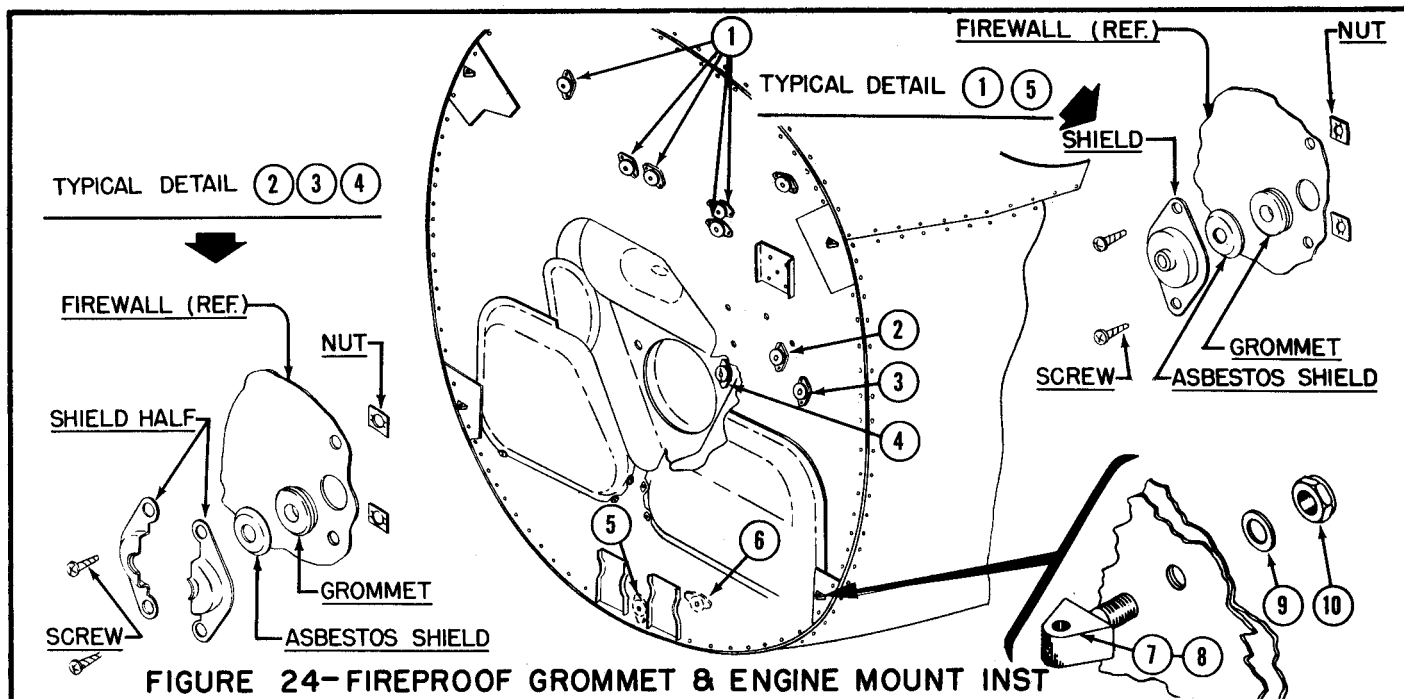


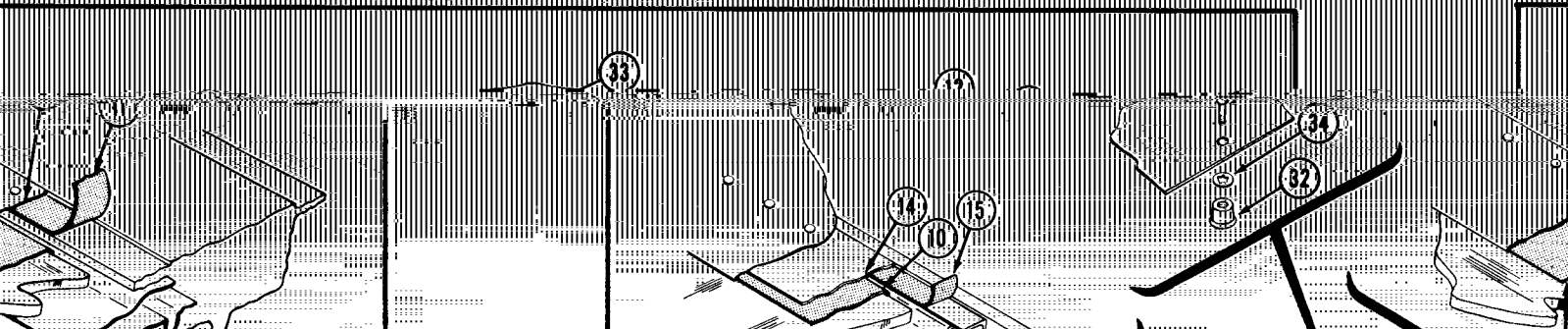
FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
24-1		Fireproof Grommet Installation							5	5
	0353111-1	Shield							1	1
	0353112-1	Shield - Asbestos							1	1
	AN931-6-10	Grommet - Rubber							1	1
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-2		Fireproof Grommet Installation							1	1
	0353111-4	Shield - Half							2	2
	0353112-4	Shield - Asbestos							1	1
	AN931-8S20	Grommet - Rubber							1	1
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-3		Fireproof Grommet Installation							1	1
	0353111-5	Shield - Half							2	2
	0353112-5	Shield							1	1
	AN931-4S16	Grommet - Rubber							1	1
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-4		Fireproof Grommet Installation							1	1
	0353111-6	Shield - Half							2	2
	0353112-3	Shield - Asbestos							1	1
	AN931-12-17	Grommet - Rubber							1	1
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-5		Fireproof Grommet Installation							1	1
	0353111-3	Shield							1	1
	0353112-2	Shield - Asbestos							1	1
	AN931-8-13	Grommet - Rubber							1	1
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-6	0353111-9	Shield							1	1
	0353111-10	Shield							1	1

-9	0312140-6	Boot - Tailwheel	1	1
-10	0312142	Seal - Tailwheel boot	1	1
-11	0312140-7	Stiffener - Tailwheel boot attachment	1	1
-12	0312140-8	Doubler - Tailwheel boot attachment	1	1
-13	NAS488-1-3	Nut - (Tinnerman A6310-6Z-3) (tail light attachment)	2	2
-14	0433006	Light Assembly - Tail (A2064-12 Grimes)	1	1
-15	0433006-2	Lens - Tail light (A-2103-1 Grimes)	1	1
-16	0433006-3	Bulb - Single contact base (S-8-15CP Grimes)	1	1
-17	0312140-17	Cap Mounting	1	1
-18	AN530-6RG	Screw - (Attach tail light)	2	2
-19	0411530	Plate - Inspection	1	1
-20	PK76XZ-10-8	Screw - (Attach inspection plate)	6	6

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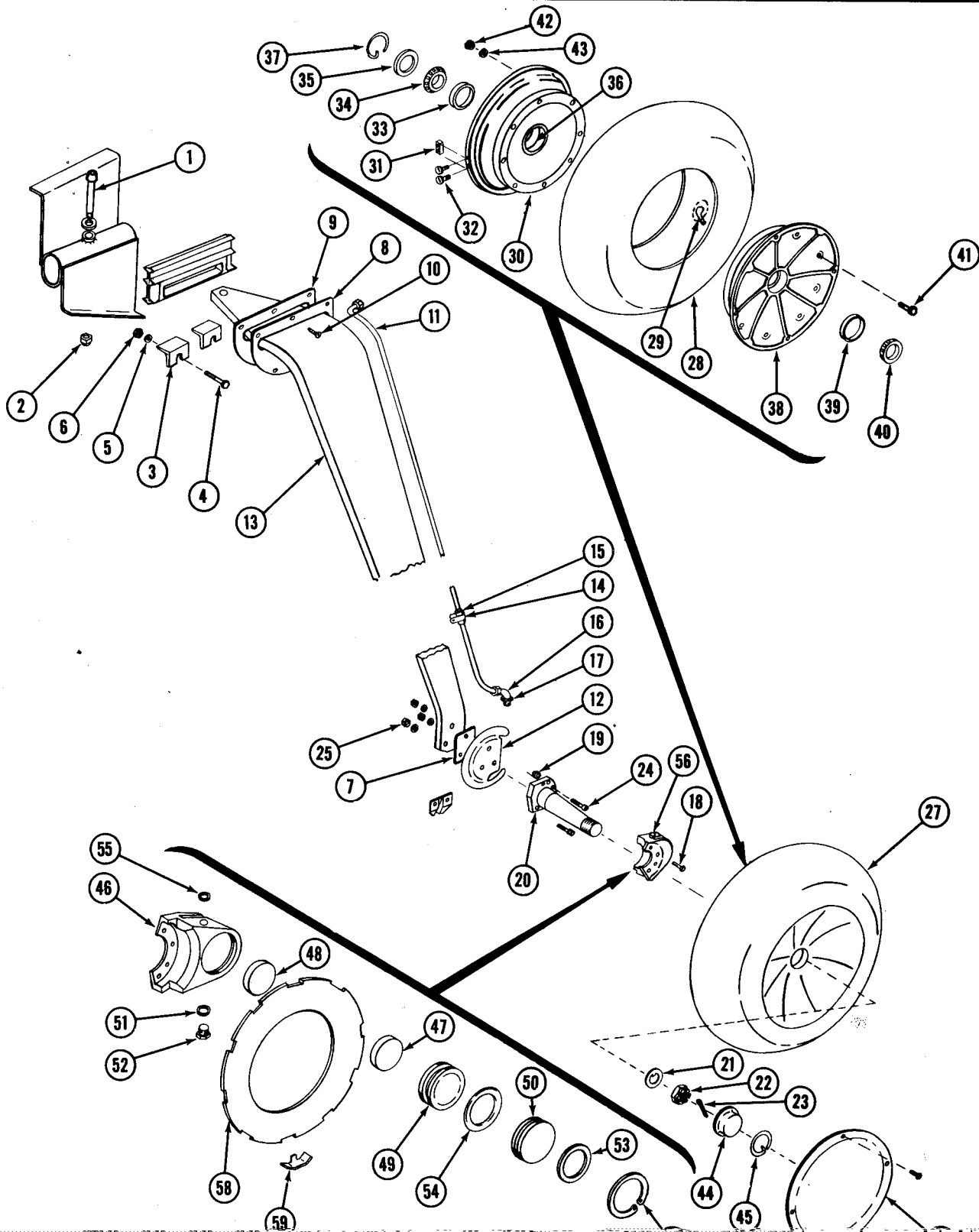
FIGURE 26

WINDSHIELD AND SUNSHADE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Windshield Installation	1	1
26-1	0311001-19	Windshield	1	1
-2	0311001-7	Strip - Windshield retainer front	1	1
-3	0311001-8	Pad - Windshield lower (felt 1/16 x 2-1/2 approx. 58" long)	1	1
-4	0311001-6	Strip - Windshield retainer front	1	1
-5	AN3-6A	Bolt - Center strip front attachment	2	2
	AN365-1032	Nut - Center strip front attachment	2	2
-6	0311268	Fairing Assembly - Windshield wing root left	1	1
-7	0311001-11	Pad - Windshield wing root	1	1
-8	AN520-R10-10	Screw - (Attach windshield outboard left)	1	1
	AN365-1032	Nut - (Attach windshield outboard left)	1	1
-9	0311264-5	Retainer Strip - Rear center inside	1	1
-10	0311001-9	Pad - Windshield upper (felt 1/16 x 2-1/2 approx. 43" long)	1	1
-11	0311001-13	Tape - Electricians (3/4" wide) (approx. 30" long) (rear center)	1	1
-12	0311264-3	Strip - Windshield attachment rear	1	1
-13	0311264-9	Strip - Windshield attachment (rear outboard inner)	2	2
-14	0311264-7	Strip - Windshield attachment (rear outboard outer)	2	2
-15	0311001-12	Tape - Electricians (1/2" wide) (Approx. 7-1/2 long) (rear outboard)	1	1
-16	0311122	Frame Assembly - Pilots window (see figure 21)	Ref	Ref
-17	0311122-1	Frame Assembly - Co-pilot window (see figure 21)	Ref	Ref
-18	0311001-10	Pad - Windshield side (felt 1/16 x 2-1/4 approx. 14" long)	2	2
-19	0311001-3	Strip - Windshield retainer center	1	1
-20	0311001-4	Strip - Windshield retainer center	1	1
-21	0311001-5	Strip - Windshield retainer (left & right)	2	2
-22	AN3-10A	Bolt - Upper attachment windshield strips	6	6
	AN365-1032	Nut	6	6
-23	AN525-10R13	Screw - (Attach upper windshield retainers)	3	3
-24	0311268-1	Fairing Assembly - Windshield wing root right	1	1
-25	0311001-11	Pad - Windshield wing root	1	1
-26	AN520-R10-10	Screw - (Attach windshield outboard right)	1	1
	AN365-1032	Nut - (Attach windshield outboard right)	1	1
-27	AN525-10R7	Screw - Attachment windshield to strips	68	68
-28	0311487	Track Assembly - Sunshade front	1	1
-29	0311488	Track Assembly - Sunshade rear	1	1
	AN525-10R14	Screw - (Attach front sunshade track)	6	6
	PK76XZ-8-6	Screw - (Attach rear sunshade track)	5	5
	NAS446-4-3	Nut - (Attach rear sunshade track) (Tinnerman A1778-8-8Z-3)	5	5
-30	0311489	Visor - Sunshade left	1	1
-31	0311489-1	Visor - Sunshade right	1	1
-32	0411092	Knob - Sunshade (left & right)	2	2
-33	AN526-832-5	Screw - Attachment knob	2	2
-34	AN936A-8	Washer - Knob	2	2
-35	0311051-2	Base - Fluorescent light	1	1
-36	AN526-640R9	Screw - Light base attachment	2	2
-37	0311051-1	Light Assembly - Fluorescent	1	1
-38	0311764-1	Strip - Retainer	1	1
-39	0311001-27	Washer - (#711 Buna bonded cork)	76	76

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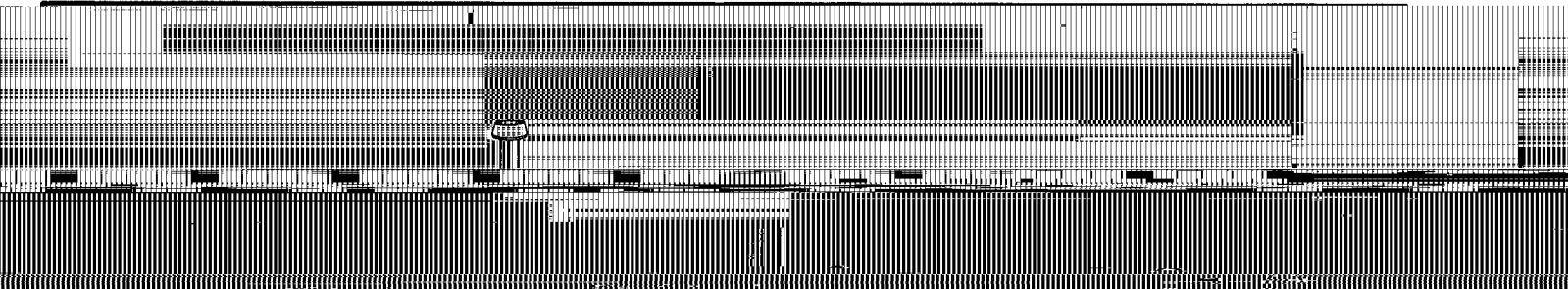


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NOTE:
For airplanes serials 7003 thru 7549 order
kit 52-3-573.

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FIGURE 30

TAIL GEAR INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
30-8	NAS143-5C	Washer - (Attach strut) (Eff. serials 7401 & on)							1	1
-9	AN960-516	Washer - (Attach strut) (Eff. serials 7401 & on)							4	4
-10	0342121-2	Washer - (Attach strut) (Eff. serials 7401 & on)							2	2
-11	AN960-516	Washer - (Attach strut) (Eff. serials 7401 & on)							AR	AR
-12	AN310-5	Nut - (Attach strut) (Eff. serials 7401 & on)							1	1
-13	AN4-12	Bolt - (Attach strut)							2	2
-14	AN310-4	Nut - (Attach strut)							2	2
-15	0342121-2	Washer - (Attach strut)							4	4
-16	0342006	Tailwheel Assembly (see figure 31 for breakdown) (serials 7003 thru 7387 except 7382, 7384 & 7385)							1	1
	0342006-1	Tailwheel Assembly (serials 7382, 7384, 7385, 7388 & on)							1	1
-17	0342140	Bushing - Tailwheel							2	2
-18	AN6-56	Bolt - (Attach tailwheel to fork)							1	1
-19	AN310-6	Nut - (Attach tailwheel to fork)							1	1
-20	AN380-3-3	Pin - Cotter							1	1
	0342100-2	Strut Assembly - Complete tailwheel shock (Eff. serials 7003 thru 7548) (not available)							1	1
	0342100-4	Strut Assembly - Complete tailwheel shock (Eff. serials 7549 & on)							1	1
-21	0342151	Spacer - Tailwheel yoke (Eff. serials 7003 thru 7548)							2	2
	0342151-1	Spacer - Tailwheel yoke (Eff. serials 7549 & on)							4	4
-22	NAS51-56	Ring - Snap							2	2
-23	0342119	Yoke Assembly - Shock strut (Eff. serials 7003 thru 7548)							2	2
	0342119-1	Yoke Assembly - Shock strut (Eff. serials 7549 & on)							2	2
-24	0342130	Bushing - Yoke							1	1
-25	0342144	Bushing - Yoke							1	1
-26	AR-6-1	Bearing - Yoke (Eff. serials 7003 thru 7548)							1	1
-27	B-912X	Bearing - Yoke (Eff. serials 7549 & on)							1	1
-28	AN24-12	Bolt - (Attach yoke)							1	1
-29	AN310-4	Nut - (Attach yoke)							1	1
-30	AN960-416L	Washer							AR	AR
-31	AN380-2-2	Pin - Cotter							1	1
	0342100-5	Strut Assembly - Tailwheel shock							1	1
	0342131	Barrel Assembly - Inner shock strut							1	1
-32	0342123	Weld Assembly - Inner shock strut							1	1
-33	0342129	Bushing - Shock strut							1	1
-34	0342126	Bearing - Shock strut (Eff. serials 7003 thru 7363)							1	1
-35	AN812-1	Body - High pressure air valve							1	1
	AN809-1	Core - High pressure air valve							1	1
-36	AN813-1A	Cap - High pressure air valve							1	1
	AN901-5A	Gasket - Cap							1	1
-37	0342134	Nut - Packing							1	1
-38	0342133	Gasket - Strut packing							1	1
-39	AN6227-25	"O" Ring							1	1
-40	0342132	Gasket - Strut packing							1	1
-41	0342135	Sleeve - Packing							1	1
-42	0342149	Gasket - Sleeve							1	1
-43	0342113	Ring - Retaining							1	1
-44	0342150	Spacer - Retainer ring							1	1
-45	0342136	Piston - Shock strut							1	1
	0342100-6	Barrel Assembly - Outer shock strut complete							1	1
-46	0342143-2	Barrel Assembly - Outer shock strut							1	1
-47	0342146	Decal - Instruction plate							1	1
-48	0342137	Arm - Steering							2	2
-49	0342138	Pin - Lock							1	1
-50	0342142	Ring - Lock							2	2
-51	0342112	Disc - Retaining							2	2
-52	NAS51-181	Ring - Retaining							1	1
-53	NAS51-187	Ring - Retaining							1	1
-54	0342145	Pin - Metering							1	1
-55	0342147-2	Spacer - Upper shock strut collar							AR	AR
-56	0342148	Spacer - Lower shock strut collar							1	1
-57	0342118	Collar - Shock strut (Eff. serials 7003 thru 7548)							1	1
	0342118-5	Collar - Shock strut (Eff. serials 7549 & on)							1	1
-58	B-308X	Bearing - Torrington							2	2
-59	AN515-8R7	Screw - (Attach spacer to collar)							1	1
-60	NAS395-12-3	Nut - (Tinnerman A1786-8Z-3)							4	4

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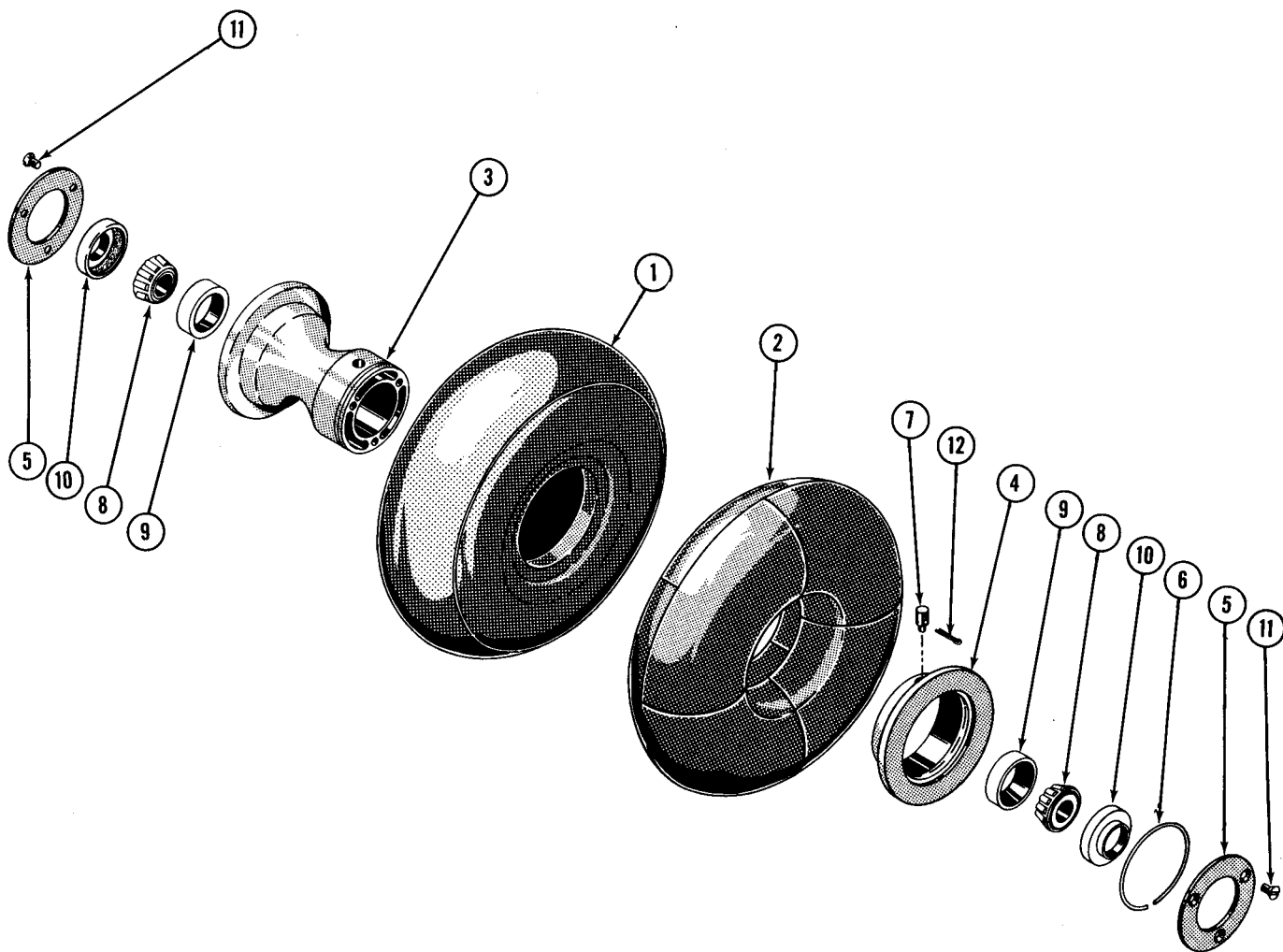


FIGURE 31- TAILWHEEL ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0342006	Tailwheel Assembly - (Serials 7003 thru 7387 except 7382, 7384 & 7385)	Ref	Ref
	0342006-1	Tailwheel Assembly - (Serials 7382, 7384, 7385, 7387 & on)	1	1
31-1	0342006-13	Tire - Conductive (10.00 SC)	1	1
-2	0342006-14	Tube - (10.00)	1	1
	0342006-2	Hub Assembly - Tailwheel (General 204-A-702M)	1	1
-3	0342006-3	Hub - Tailwheel (General 204-A-703)	1	1
-4	0342006-4	Flange - Tailwheel (General 204-A-704)	1	1
-5	0342006-5	Plate - Cover (General 204-A-705)	2	2
-6	0342006-6	Ring - Flange lock (General 204-A-706)	1	1
-7	0342006-7	Pin - Lock (General 204-A-707)	1	1
-8	0342006-9	Core - Bearing (Timken 03062)	2	2
-9	0342006-10	Cup - Bearing (Timken 03162)	2	2
-10	0342006-11	Retainer - Grease (General 203-A-978)	2	2
-11	AN505-10-5	Screw	6	6
-12	AN380-2-2	Pin - Cotter	1	1
		General indicates General Tire & Rubber Co.		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

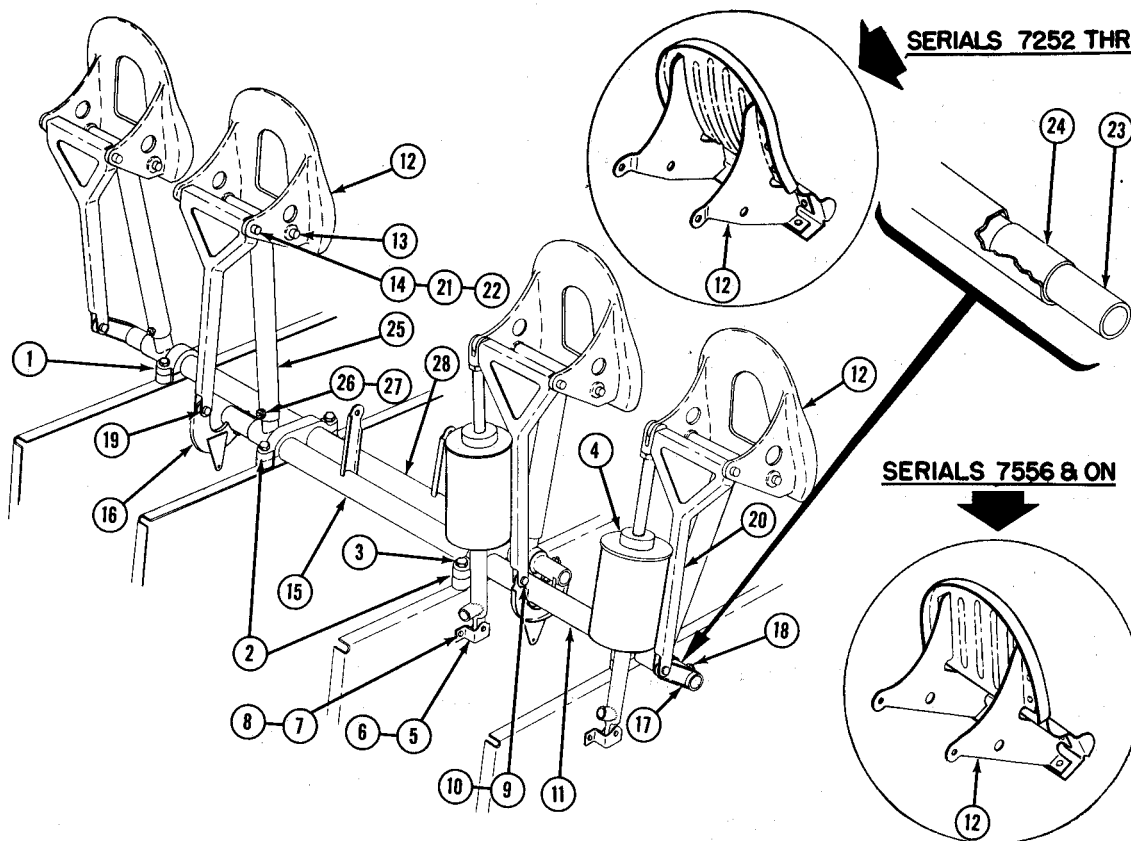


FIGURE 32-BRAKE & RUDDER PEDAL INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Brake And Rudder Pedal Installation (Cessna 0310107)	1	1
32-1	0411263	Bearing - Rudder pedal outboard	2	2
-2	0411264	Bearing - Rudder pedal inboard	2	2
-3	AN3-14A	Bolt - (Attach rudder bar)	8	8
	AN365-1032	Nut - (Attach rudder bar)	8	8
-4		Master Cylinder - Brake (Goodyear 95-3681) (Eff. serials 7003 thru 7587) (see figure 33 for breakdown)	2	2
		Master Cylinder - Brake (Scott 4408E) (Eff. serials 7588 thru 7712) (see figure 34 for breakdown)	2	2
	0541138-3	Master Cylinder - Brake (Eff. serials 7713 & on) (see figure 35 for breakdown)	2	2
-5	0411549	Bracket - Brake cylinder inside	2	2
-6	0411550	Bracket - Brake cylinder outside	2	2
-7	AN3-4A	Bolt - (Attach bracket)	4	4
-8	AN365-1032	Nut - (Attach bracket)	4	4
-9	AN393-13	Pin - Clevis	2	2
-10	AN380-2-2	Pin - Cotter	2	2
-11	0310107-10	Bar Assembly - Dual brakes and rudder left	1	1
-12	0411300	Pedal - Brake & rudder (serials 7003 thru 7451) (not available)	2	2
	0310452	Pedal - Brake & rudder (serials 7452 thru 7561) (not available)	2	2
	0310453	Pedal - Brake & rudder (Eff. serials 7562 & on)	2	2
-13	0411369-2	Shaft - Rudder pedal	2	2
-14	0411778-1	Shaft - Rudder pedal (serials 7003 thru 7451) (used with 0411300 pedal only)	2	2
	0411778-2	Shaft - Rudder pedal (Eff. serials 7252 & on)	2	2
-15	0310167	Bar - Brake & rudder left	1	1
-16	0310389	Bellcrank Assembly - Rudder bar left	1	1
-17	0411563	Bellcrank Assembly - Rudder & dual brakes	1	1
-18	AN3-10A	Bolt - (Attach bellcrank)	2	2
	AN365-1032	Nut - (Attach bellcrank)	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 32 BRAKE AND RUDDER PEDAL INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
32-19	AN393-13						Pin - Clevis	2	2
	NAS43-3-12						Spacer - Bellcrank arm	2	2
	AN380-2-2						Pin - Cotter	2	2
-20	0411564						Link - Dual brakes	2	2
-21	AN380-2-2						Pin - Cotter	4	4
-22	NAS42-6-8						Spacer	1	1
-23	0310407						Tube - Dual brakes torque	1	1
-24	0411548						Bearing - Rudder bar	2	2
-25	0411307						Arm - Rudder pedal	2	2
-26	AN3-11A						Bolt - (Attach arm)	2	2
-27	AN365-1032						Nut - (Attach arm)	2	2
-28	0310107-11						Bar Assembly - Dual brakes & rudder right	1	1
							NOTE: This assembly is identical to 0310107-10 except use 0310167-1 instead of 0310167, and 0310238 instead of 0310389.		

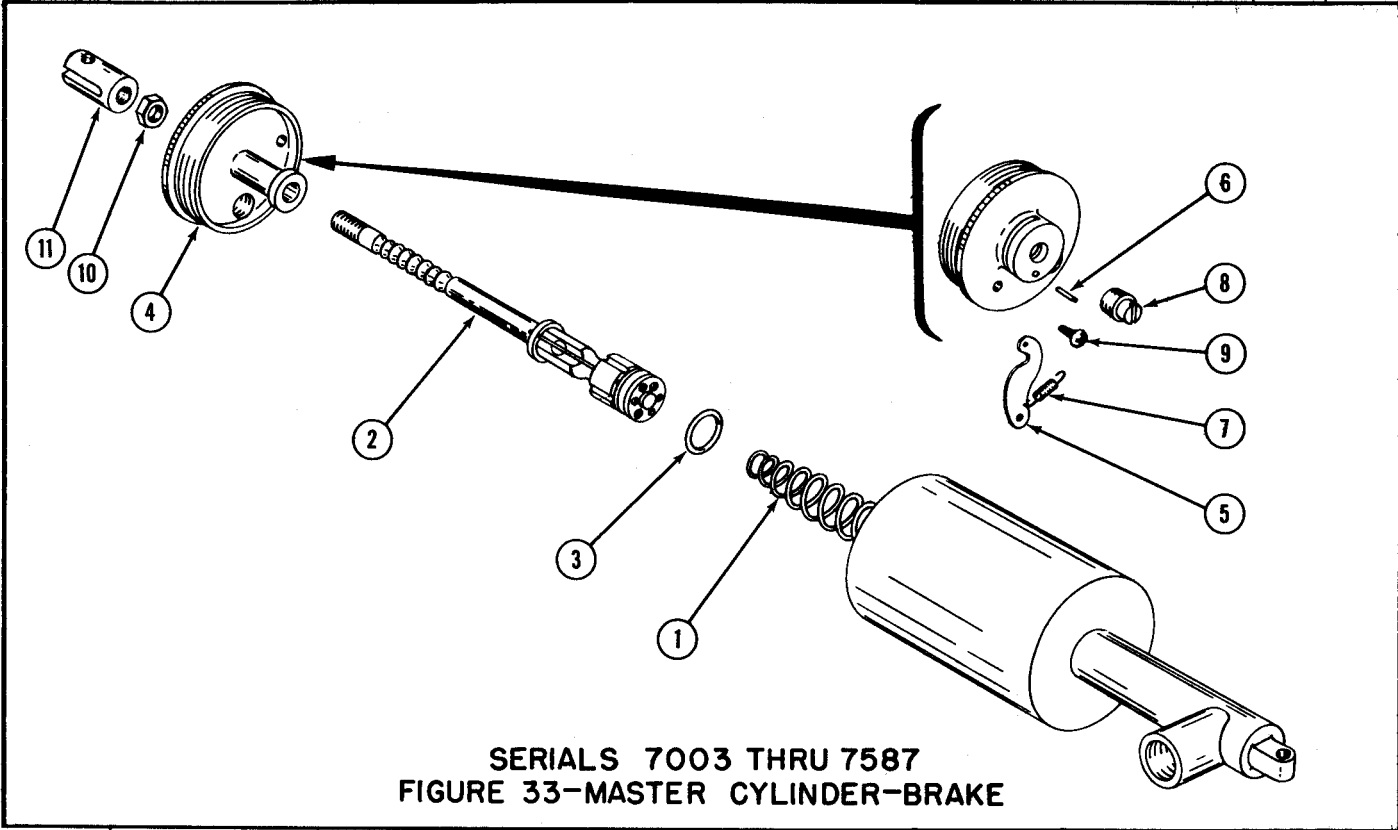
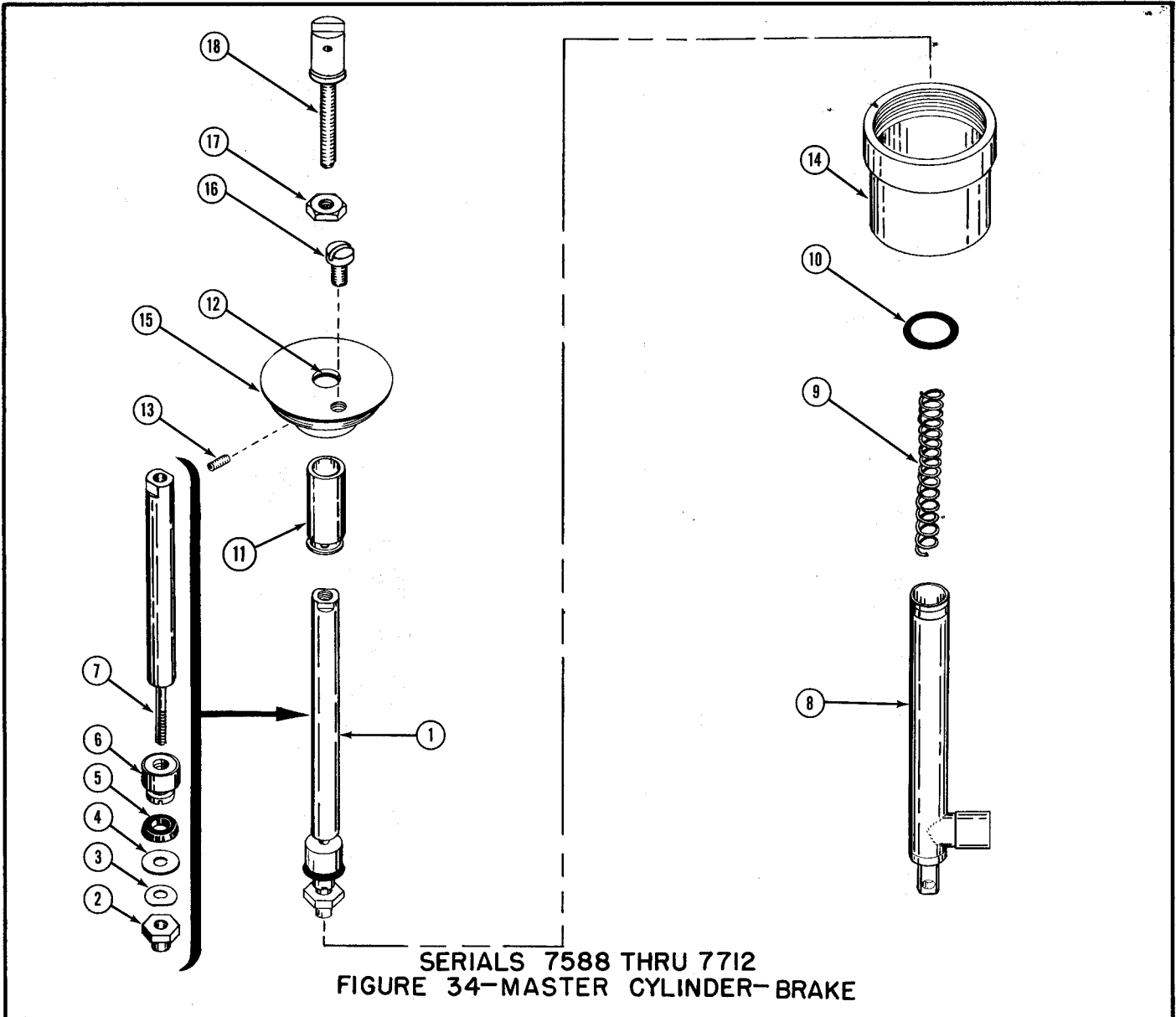


FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0411058						Master Cylinder - Brake (Goodyear 95-3681)(see figure 52 for NHA)	0411058	Ref
	0411058-2						Sub Assembly - Cylinder and reservoir (Goodyear 95-3676)	1	1
33-1	0411058-3						Spring - Piston return (Goodyear 95-3786)	1	1
-2	0411058-4						Sub-Assembly - Piston & rod (Goodyear 9510088)	1	1
-3	AN6227-7						"O" ring - Piston	1	1
-4	0411058-5						Cover - Reservoir (Goodyear 95-3682)	1	1
-5	0411058-6						Lever - Parking (Goodyear 95-3675)	1	1
-6	0411058-7						Pin - Dowel (Goodyear 95-4935)	1	1
-7	0411058-8						Spring - Tension (Goodyear 95-3671)	1	1
-8	0411058-9						Plug - Plastic (Goodyear 9510292)	1	1
-9	AN530-6R4						Screw	1	1
-10	AN316-412						Nut - Check	1	1
-11	0411058-10						Clevis - Rod end (Goodyear 9510045)	1	1

ILLUSTRATED PARTS CATALOG



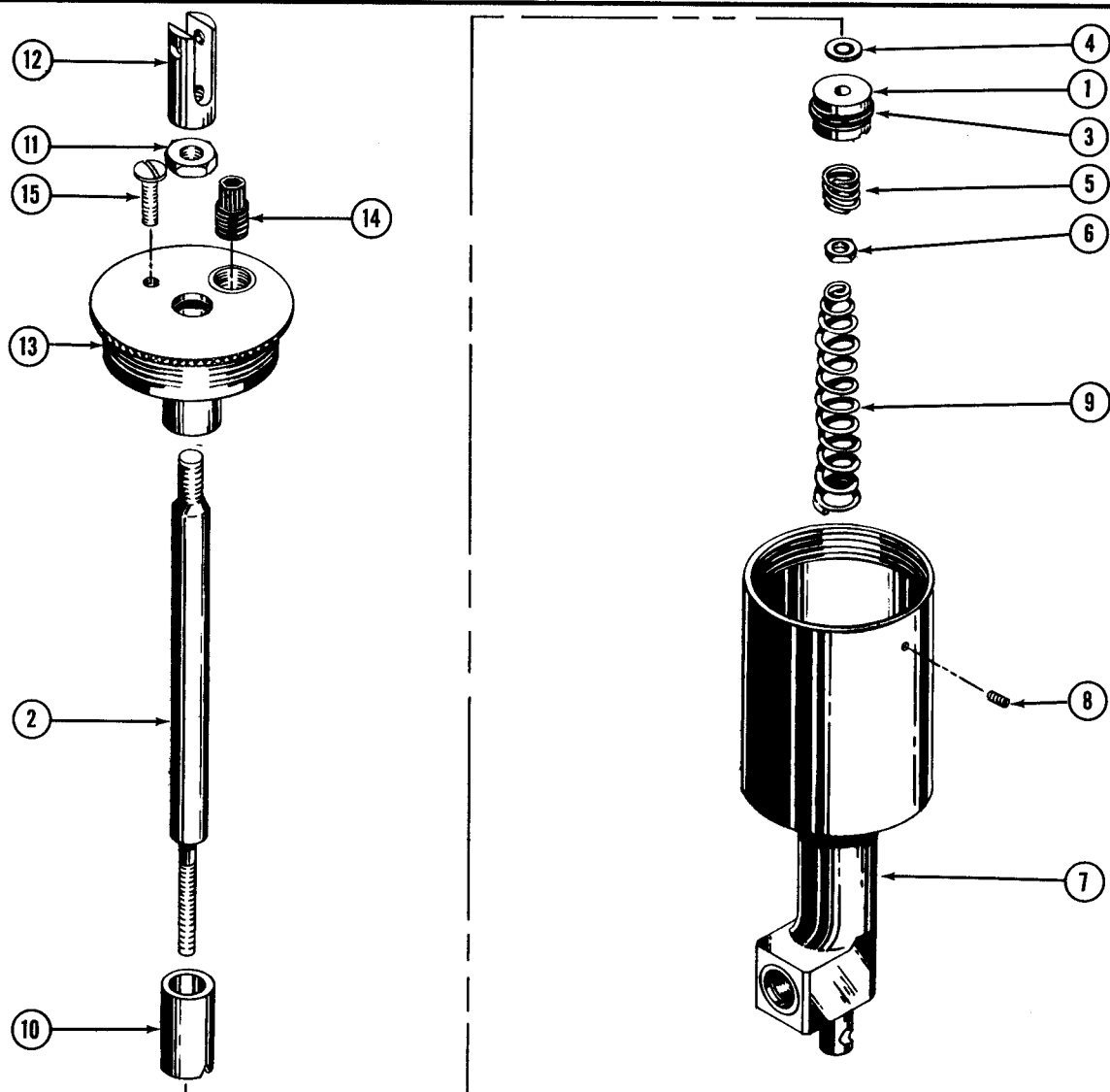
SERIALS 7588 THRU 7712
FIGURE 34-MASTER CYLINDER-BRAKE

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Master Cylinder - Brake (Scott 4408E) (0411302-20 Ref)						Ref	Ref
34-1	0411302-3	Piston Assembly - Cylinder						1	1
-2	0411302-17	Nut - Piston (Scott 4481)						1	1
-3	0411302-19	Washer - Spring (Scott 4485)						1	1
-4	0411302-15	Washer - Piston (Scott 4468)						1	1
-5	0411302-13	"U" Cup - Piston (Linear 1825-43)						1	1
-6	0411302-16	Piston Assembly - (Scott 4476)						1	1
-7	0411302-18	Stem						1	1
-8	0411302-4	Cylinder Assembly - (Scott 4472B)						1	1
-9	0411302-9	Spring - (Scott 4480)						1	1
-10	0411302-14	"O" Ring - (Linear 16003-11)						1	1
-11	0411302-11	Stop - Piston (Scott 4483)						1	1
-12	0411302-5	Seal - Piston stem (Scott 4014)						1	1
-13	AN565-D6H3	Set screw						4	4
-14	0411302-7	Reservoir - (Scott 4473AL)						1	1
-15	0411302-21	Cap - Reservoir (Scott 4454-1)						1	1
-16	AN501-416-5	Screw - Fillister head						1	1
-17	AN316-4R	Nut - Lug stop						1	1
-18	0411302-8	Lug - Mounting (Scott 4008-1)						1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG



SERIALS 7713 & ON
FIGURE 35-MASTER CYLINDER-BRAKE

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0541138-3	Master Cylinder - Brake						Ref	Ref
	0541138-5	Piston Assembly - Master cylinder						1	1
35-1	0541143	Piston - Master cylinder						1	1
-2	0541144	Rod - Master cylinder piston						1	1
-3	AN6227-8	"O" Ring - Piston						1	1
-4	200AC-6	Lock-O-Seal - Piston rod						1	1
-5	0541148-1	Spring						1	1
-6	AN365-632C	Nut - Piston						1	1
-7	0541147	Body - Master cylinder						1	1
-8	AN565-D6-3	Screw - Set						1	1
-9	0541148	Spring - Piston return						1	1
-10	0541149	Sleeve - Piston rod						1	1
-11	AN316-4R	Nut - Clevis lock						1	1
-12	0541140	Clevis - Master cylinder attachment						1	1
-13	0541151	Cover - Master cylinder						1	1
-14	0541139	Plug - Filler						1	1
-15	1024 x 1/2	Screw - Machine						1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

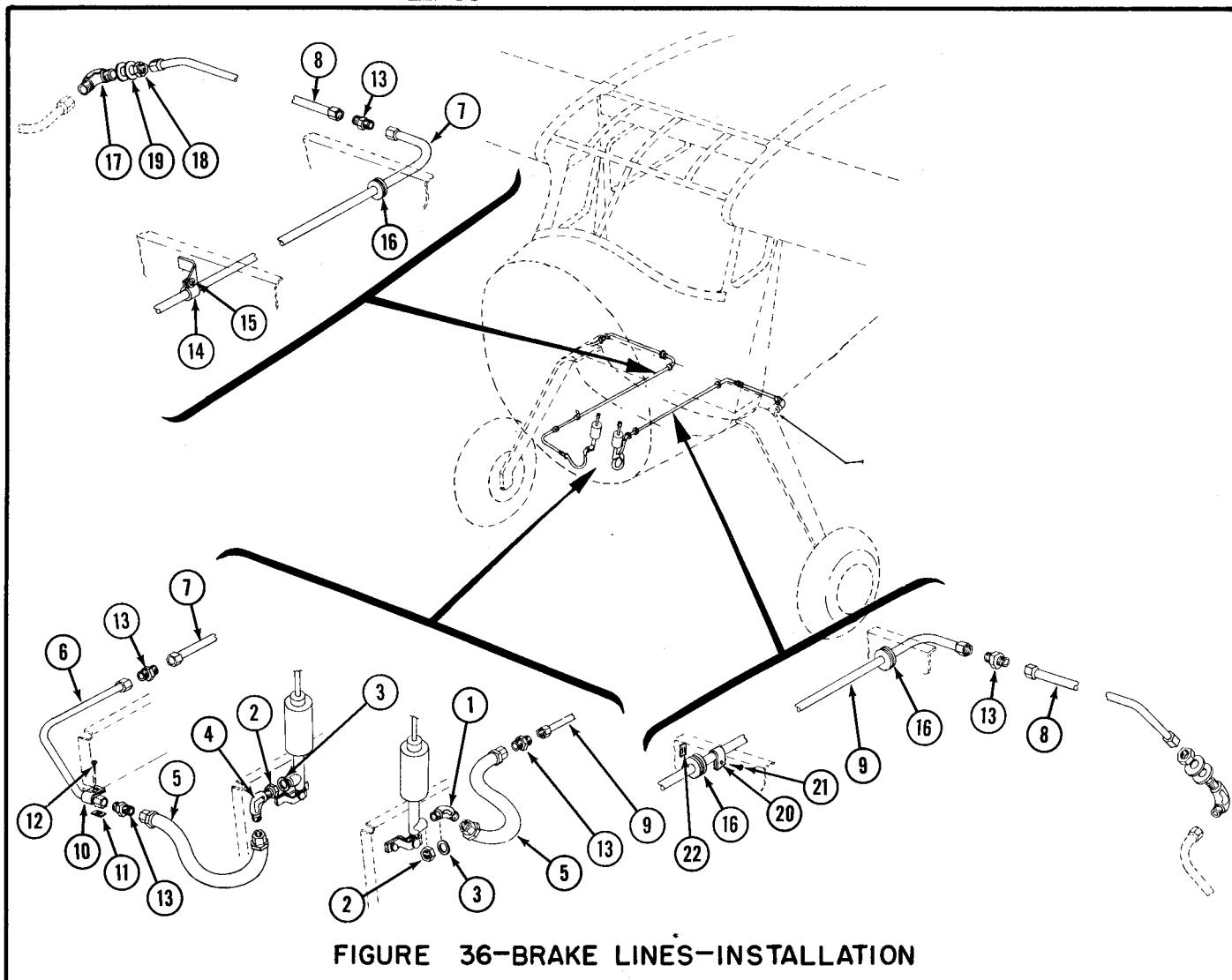


FIGURE 36-BRAKE LINES-INSTALLATION

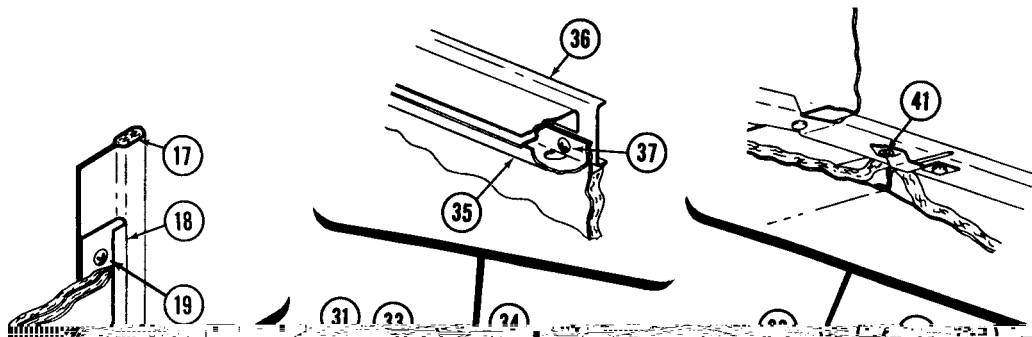
FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Brake Lines Installation (Cessna drawing 0310101)	1	1
36-1	AN922-4D	Elbow - Flared tube universal 45°	1	1
-2	AN924-4D	Nut - Flared tube, bulkhead and universal fitting	2	2
-3	AN902-4	Gasket - Flared tube and universal fitting	2	2
-4	AN833-4D	Elbow - Flared tube and universal 90°	1	1
-5	AN6264-4D-10	Hose Assembly - Medium high pressure hydraulic	2	2
-6	0300106-1	Line - Brake (flexible hose to union right)	1	1
-7	0300106-2	Line - Brake (union to bulkhead right)	1	1
-8	0300106-3	Line - Brake (bulkhead to fuselage skin)	2	2
-9	0300106-36	Line - Brake (union to bulkhead left)	1	1
-10	AN742-D6C	Clamp - (Attach brake line)	1	1
-11	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)	1	1
-12	PK76XZ-8-6	Screw - (Attach clamp)	1	1
-13	AN815-4D	Union - Flared tube	5	5
-14	NAS435-4D	Clamp - (Tinnerman A3048A8)	1	1
-15	PK76XZ-8-6	Screw - (Attach clamp)	1	1
-16	AN931-4S12	Grommet - Elastic	3	3
-17	AN833-4D	Elbow - Flared tube and universal 90°	2	2
-18	AN924-4D	Nut - Flared tube, bulkhead and universal fitting	2	2
-19	AN960-716	Washer	4	4
-20	A3046A-4	Clamp - (Tinnerman)	1	1
-21	PK76XZ-8-6	Screw - (Attach clamp)	1	1
-22	A1778-8Z-3	Nut - (Tinnerman)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG



-38	0311174-10	Panel Assembly - Soundproofing	1	1
-39	0311174-12	Panel Assembly - Soundproofing	1	1
-40	0311628	Retainer - Headlining	3	3
-41	PK76XZ-4-4	Screw - (Attach headliner)	15	15
-42	0311004	Curtain Installation Kit - Baggage compartment	1	1
	0311004-26	Curtain Assembly - Baggage compartment	1	1
	0311004-11	Channel - Baggage curtain	3	3
	49265-F52	Clip - Curtain retaining	12	12
-43	0311188	Curtain Assembly - Baggage wall	1	1
-44	49265-F52	Clip - Curtain retaining (United Carr)	9	9
-45	0311174-7	Panel - Soundproofing	2	2
-46	0311183-2	Panel - Window trim	2	2
-47	0311183-6	Panel - Window trim	1	1
-48	0311182-1	Panel Assembly - Upper left	1	1
-49	0311625	Cover - Left windshield interior	1	1
-50	0311051-2	Lamp-Base	1	1
	AN365-632R8	Screw - (Attach lamp base)	2	2
	AN365-632	Nut - (Attach lamp base)	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 37

UPHOLSTERY INSTALLATION(CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
37-51	0311183-18	Panel - Window trim	1	1
-52	AN526-832R10	Screw Attach Panel	2	2
-53	0311176	Panel Assembly - Left aft (Eff. ser. 7003 thru 7741)	1	1
	0311176-44	Panel Assembly - Left aft (Eff. ser. 7742 thru 16083)	1	1
	0300100-29	Panel Assy - Left aft (Eff. ser 16084 & on)		1
	0300100-5	Armrest Assembly	1	1
	0300100-28	Cover Assembly	1	1
	AN545-4R6	Screw	5	5
	AN545-4R10	Screw	5	5
	0311647-34	Trim	1	1
	0311647-30	Trim	1	1
	PK86XZ-4-6	Screw	14	14
-54	PK76XZ-4-4	Screw - (Attach panel)	1	1
-55	0311175	Panel Assembly - Forward left (Eff. ser 7532 thru 7716)	1	1
	0311175-26	Panel Assembly - Forward left (Eff. ser 7742 thru 7758)	1	1
	0311175-18	Panel Assembly - Forward left (Eff. ser 7759 thru 7766)	1	1
	0311175-27	Panel Assembly - Forward left (Eff. ser 7767 thru 16083)	1	1
	0300100-10	Panel Assembly - Forward left (Eff. ser 16084 & on)		1
	0300100-133	Armrest Assembly	1	1
	0300100-9	Cover Assembly	1	1
	PK76XZ-8-8	Screw - (Attach armrest)	3	3
-56	PK86XZ-6-8	Screw (Attach panel)	40	40
	22NKM-9-2	Nut - (Attach panel)	2	2
-57	0311172-11	Crank Assembly - Window (4114662 General Motors)	1	1
	0311172-12	Escutcheon - Window crank (4132059 General Motors)	1	1
	0311172-13	Clip - Spring (#11 Auto Vehicle Parts)	1	1
-58	0311804	Door Assembly - (Eff. ser 7350 thru 16111)	1	1
	0311804-1	Door Assembly - (Eff. ser 16112 & on)	1	1
	0411092	Knob - Door pull (Eff. ser 7003 thru 16111)	1	1
	0411092-1	Knob - Door Pull (Eff. ser 16112 & on)	2	2
	0311803	Stud - Door Fastener	1	1
-59	AN515-8-5	Screw - (Attach knob & stud)	1	1
	AN936A8	Washer	1	1
-60	AN251-o-600	Hinge	1	1
-61	PK76XZ-6-6	Screw - (Attach circuit breaker door)	2	2
-62	PK76XZ-4-6	Screw - (Attach circuit breaker door)	4	4
	NAS395-1-3	Nutplate - (Tinnerman, A6187-4Z-3)	4	4
-63	0311453	Placard - Fuel valve (Eff. ser 7003 thru 7261) (190 only)	1	1
-64	0311426	Cover - Oil tank	1	1
	0311852	Placard - Fuel valve (Eff. ser 7272 & on) (190 only)	1	1
-65	0311189	Carpet Assembly - Floorboard	1	1
-66	0311772-3	Retainer - Carpet	1	1
-67	0311772-4	Retainer - Carpet	1	1
-68	0311772-2	Retainer - Carpet	1	1
-69	PK76XZ-6-4	Screw - (Attach retainers)	9	9
-70	0311746	Strip - Upholstery retainer	8	8
-71	0311722	Plate - Scuff	2	2
-72	PK86XZ-6-8	Screw - (Attach retainer strips & scuff plate)	44	44
-73	0311620	Placard - Fuel drain	1	1
-74	PK76XZ-4-4	Screw - (Attach placard)	2	2
-75	0310313	Placard - Control lock	1	1
-76	PK76XZ-6-8	Screw - (Attach placard)	1	4
-77	0310413	Scuff Pad - Control column (Eff. ser 7003 thru 7393)	1	1
-78	0310413-4	Scuff Pad - Control column (Eff. ser 7394 & on)	1	1
-79	0311732	Shelf Assembly - Baggage comp.	1	1

FIGURE 38

BAGGAGE DOOR INSTALLATION

		Baggage Door Installation	1	1
38-1	AN3-14	Bolt - (Attach hinge to fuselage)	2	2
-2	AN320-3	Nut - (Attach hinge to fuselage)	2	2
-3	AN380-2-3	Pin - Cotter	2	2
-4	AN960-10	Washer	4	4
	0311646	Baggage Door Assembly - Complete	1	1
-5	0311646-7	Panel Assembly - Baggage door upholstery	1	1
-6	0311419	Placard - Baggage (Eff. serials 7003 thru 7444)	1	1
	0311419-8	Placard - Baggage (Eff. serials 7445 & on)	1	1
-7	PK76XZ-4-4	Screw - (Attach placard)	2	2
-8	99608-F52	Fastener - Snap (United Carr)	20	20
-9	0311323	Door Assembly - Baggage (less upholstery)(see figure 19 for NHA)	Ref	Ref
-10	0311323-3	Skin - Baggage door outer	1	1
-11	0311321	Skin - Baggage door inner	1	1
-12	0311448	Rod - Latch operating	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

FIGURE 38

BAGGAGE DOOR INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
38-13	0311317							2	2
-14	AN526-1032R10							4	4
-15	AN365-1032							6	6
-16	0413271-17							2	2
-17	0413271-18							1	1
-18	0413271-19							1	1
-19	0311323-4							1	1
-20	AN526-832R6							1	1
-21	AN366F832							1	1
-22	0311323-5							1	1
-23	0311324							1	1
-24	0311318							1	1
-25	0311281-3							1	1
-26	0311284							1	1
-27	0411555							1	1
-28	0311320							2	2
-29	NAS42C-4-8							1	1
-30	NAS42C-4-2							1	1
-31	AN392-13							1	1
-32	AN380-2-2							1	1
-33	NAS41-3-1.5625							1	1
-34	NAS41-2-1.000							1	1

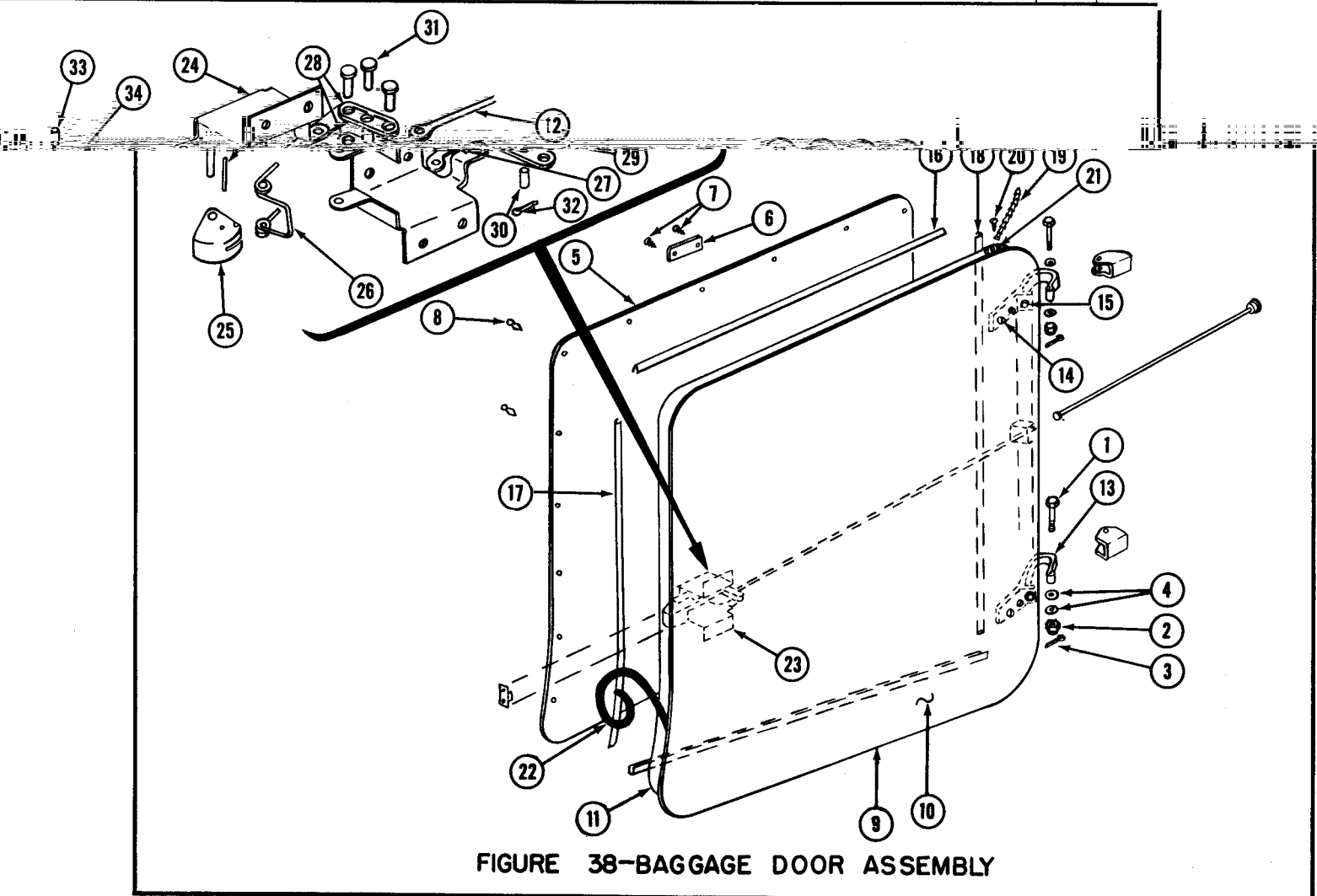


FIGURE 38-BAGGAGE DOOR ASSEMBLY

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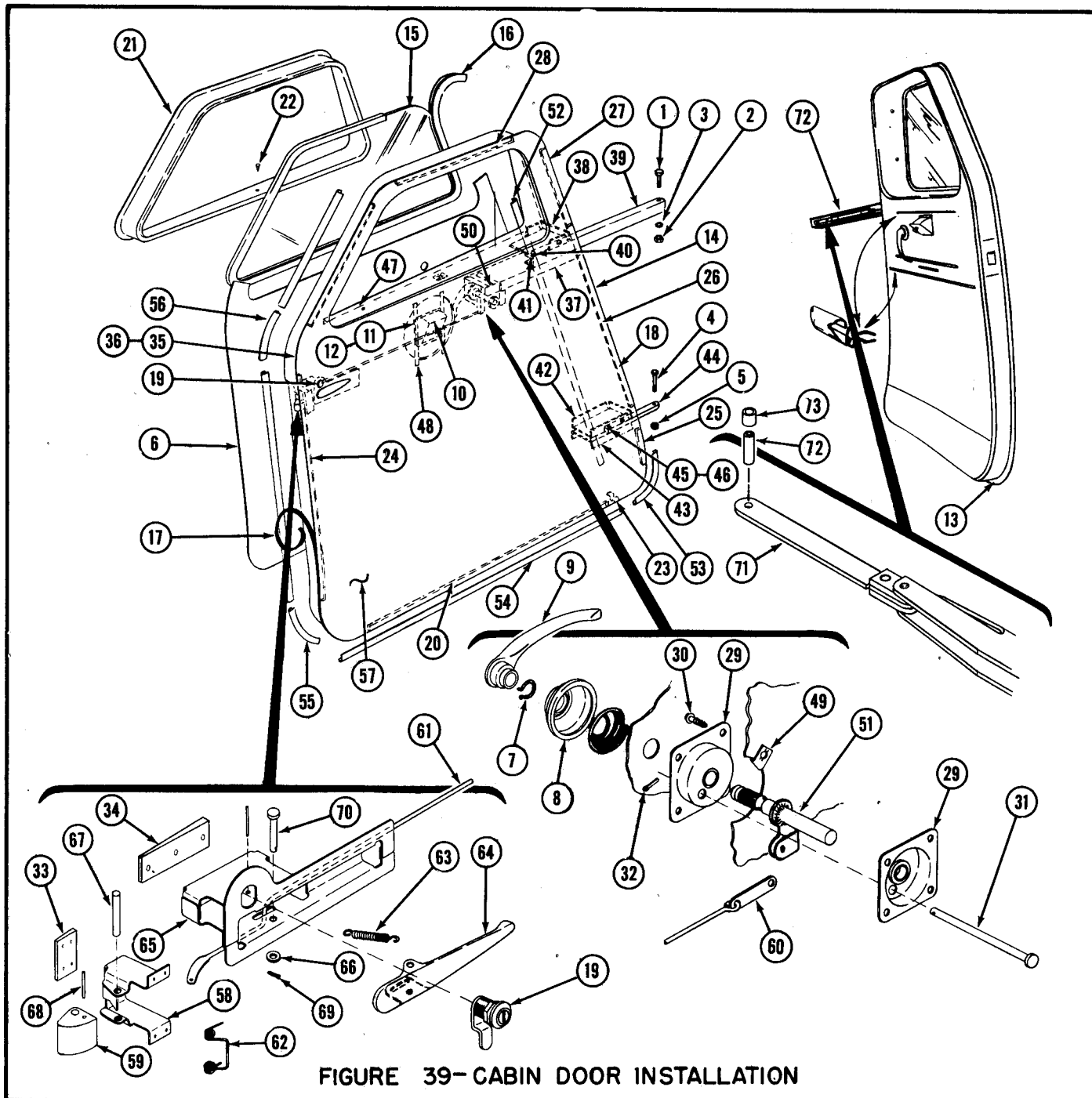


FIGURE 39-CABIN DOOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Cabin Door Installation	1	1
39-1	AN4-10A	Bolt - (Upper hinge attachment)	1	1
-2	AN365-428	Nut - (Upper hinge attachment)	1	1
-3	AN960-416	Washer - Plain	1	1
-4	AN4-15A	Bolt - (Lower hinge attachment)	1	1
-5	AN365-428	Nut - (Lower hinge attachment)	1	1
	0311647-22	Cabin Door Assembly - Complete (serials 7003 thru 7741)	1	1
	0311647-41	Cabin Door Assembly - Complete (serials 7742 & on)	1	1
-6	0311647-14	Upholstery Assembly - Cabin door (serials 7003 thru 7741)	1	1
	0311647-40	Upholstery Assembly - Cabin door (serials 7742 thru 16083)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

FIGURE 39

CABIN DOOR INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
39-	0300100-47						Upholstery Assembly - Cabin door (serials 16084 & on)		1
-7	0511182						Clip - Spring (serial 7003 thru 16083)	1	1
	0511189-1						Clip - Spring (serials 16084 & on)		1
-8	0511181						Escutcheon - Door handle (serials 7003 thru 16083)	1	1
	0511189-2						Escutcheon - Door handle (serials 16084 & on)		1
-9	0511183						Handle - Door (serials 7003 thru 16083)	1	1
	0511189						Handle - Door (serials 16084 & on)		1
	0413317-1						Spring - Door handle (serials 16084 & on)		1
-10	0411030-4						Receiver - Ash (serials 7003 thru 7766)	1	1
-11	AN515-6R-6						Screw - (Attach ash receiver) (serials 7003 thru 7766)	2	2
	0411030-3						Receiver - Ash (serials 7767 & on)	1	1
	PK76XZ-4-8						Screw - (Attach ash receiver) (serials 7767 & on)	2	2
-12	AN365-632						Nut - (Attach ash receiver)	2	2
-13	0311647-12						Bead Assembly - Door upholstery	1	1
-14	0311204						Door Assembly - Cabin (less upholstery)	1	1
-15	0311204-3						Window - Cabin door	1	1
-16	0311204-4						Seal - Cabin window	1	1
-17	0311204-8						Seal - Door	1	1
-18	0311204-9						Seal - Door	1	1
-19	0311444						Lock Assembly - Cabin door	1	1
-20	0413271-11						Angle - Seal retaining	1	1
-21	0311244						Moulding - Window	1	1
-22	PK76XZ-8-6						Screw - (Attach moulding to skin)	10	10
-23	0311298						Clip - Door step	1	1
-24	0413271-12						Angle - Seal retaining	1	1
-25	0413271-13						Angle - Seal retaining	1	1
-26	0413271-14						Angle - Seal retaining	1	1
-27	0413271-15						Angle - Seal retaining	2	2
-28	0413271-16						Angle - Seal retaining	1	1
-29	0413195-3						Plate - Bearing	2	2
-30	PK79XZ-8-8						Screw - (Attach inner bearing plate)	2	2
-31	AN394-83						Pin - Flat head	1	1
-32	AN380-2-2						Pin - Cotter	1	1
-33	0311204-5						Spacer - Phenolic	1	1
-34	0311204-6						Spacer - Phenolic	1	1
-35	0311274						Skin Assembly - Cabin door inner	1	1
-36	0311274-3						Skin - Door inner	1	1
-37	0311274-4						Stiffener - Upper door hinge	1	1
-38	0311274-5						Stiffener - Upper door hinge	1	1
-39	0311274-6						Hinge - Door upper	1	1
-40	AN3-13A						Bolt - (Attach hinge)	2	2
-41	AN365-1032						Nut - (Attach hinge)	2	2
-42	0311274-8						Stiffener - Lower door hinge	1	1
-43	0311274-9						Stiffener - Lower door hinge	1	1
-44	0311274-10						Hinge - Door lower	1	1
-45	AN3-6A						Bolt - (Attach hinge)	2	2
-46	AN365-1032						Nut - (Attach hinge)	2	2
-47	0311274-11						Angle - Inner door skin reinforcement	1	1
-48	0311274-12						Support - Ash receiver	2	2
-49	NAS395-13-3						Nut - (Tinnerman A6077-8Z-3)	4	4
-50	0311274-14						Bracket - Door handle	1	1
-51	0311363						Shaft Assembly - Door handle	1	1
-52	0311648-3						Strip - (Attach upholstery)	1	1
-53	0311648-5						Strip - (Attach upholstery)	1	1
-54	0311648-7						Strip - (Attach upholstery)	1	1
-55	0311648-9						Strip - (Attach upholstery)	1	1
-56	0311648-11						Strip - (Attach upholstery)	1	1
-57	0311273						Skin Assembly - Cabin door outer	1	1
	0311285						Latch Assembly - Cabin door	1	1
-58	0311280						Housing - Door latch	1	1
-59	0311281-4						Pawl - Door latch	1	1
-60	0311282						Link - Door latch	1	1
-61	0311283						Rod - Door latch pawl	1	1
-62	0311284						Spring - Panel	1	1
-63	0311433						Spring - Handle	1	1
-64	0311434						Handle - Door latch	1	1
-65	0311435						Bracket - Door handle recess	1	1
-66	AN960-10L						Washer	3	3
-67	NAS41-3-1.562						Shaft - Pawl pivot	1	1
-68	NAS41-2-1.000						Shaft - Door latch pull rod	1	1
-69	AN380-2-2						Pin - Cotter	1	1
-70	AN393-33						Pin - Flat head	1	1
-71	0311424						Stop Assembly - Cabin door	1	1
-72	0311539-3						Bushing - Door stop	2	1
-73	0300001-5						Spacer - Door stop	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

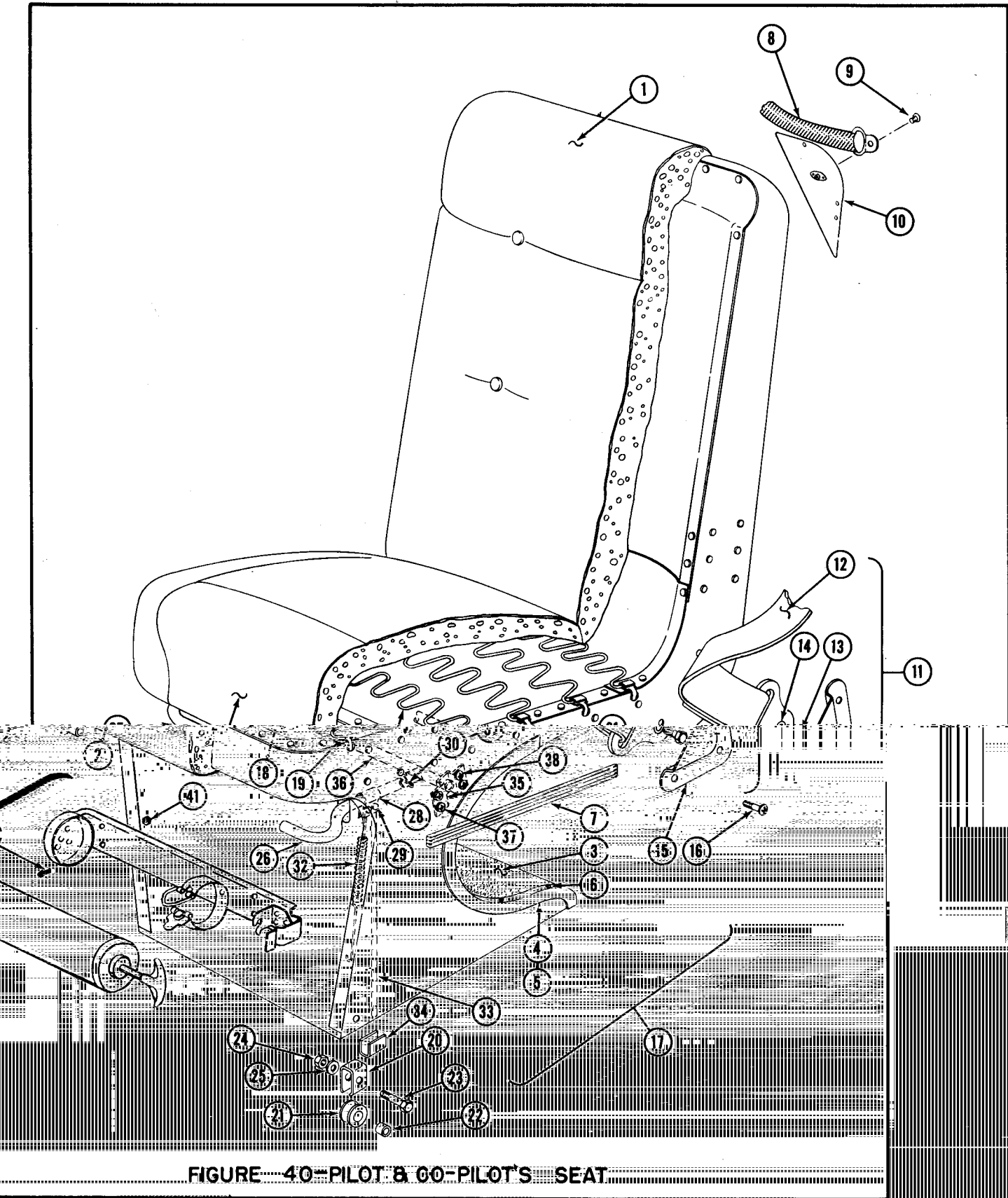
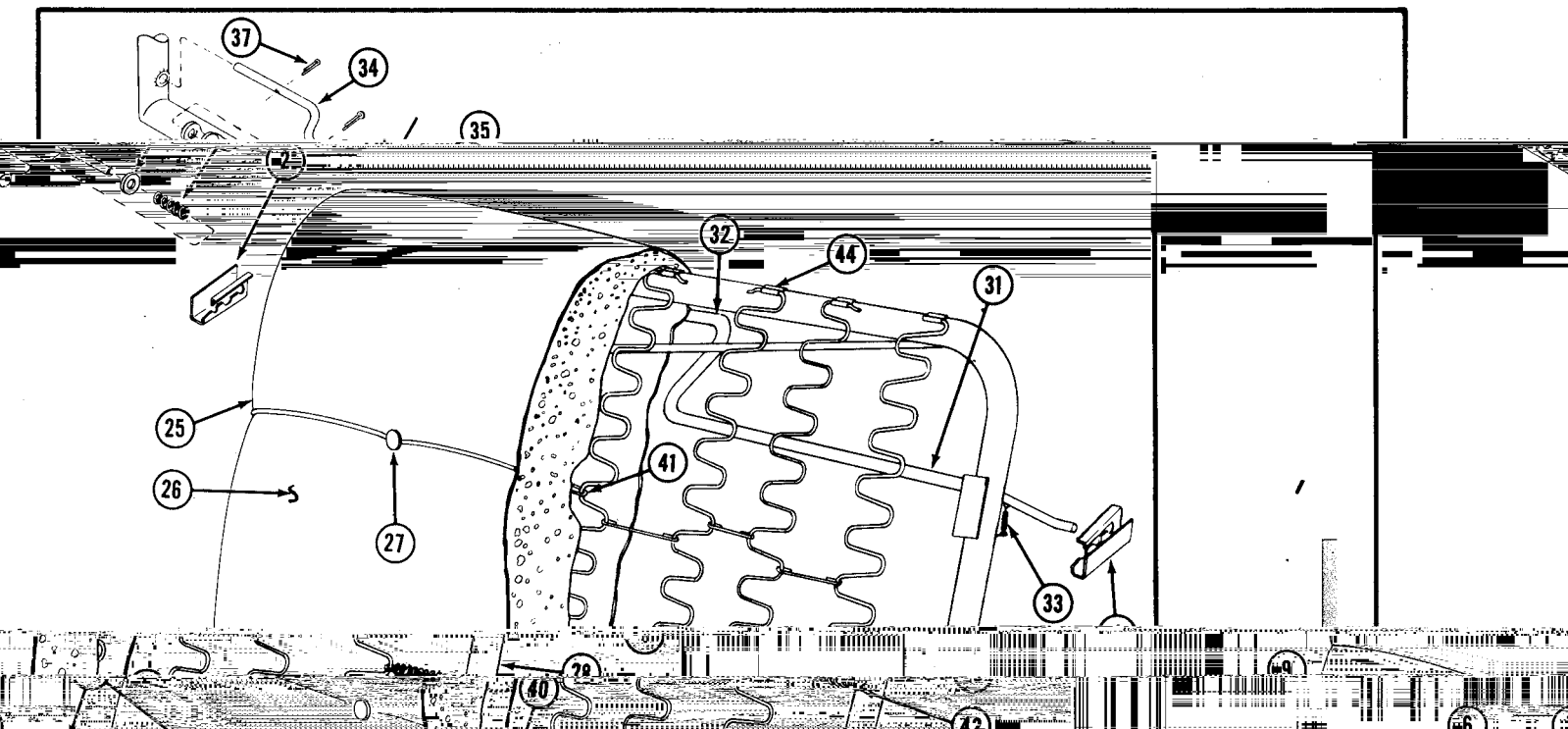


FIGURE 40-PILOT'S SEAT

PART NAME						UNITS REQUIRED ON MODELS		FIGURE AND REF. NO.	PART NUMBER	
						190	195			
2	3	4	5	6						
Assembly - Co-pilot complete (Eff. serials 7003 thru 7741)						1	1		0311618	Se
Assembly - Co-pilot complete (Eff. serials 7742 & on)						1	1		0311618-85	Se
Assembly - Pilot complete (Eff. serials 7003 thru 7741)						1	1		0311618-2	Se
Assembly - Pilot complete (Eff. serials 7742 & on)						1	1		0311618-30	Se
Cover Assembly - Seat back (Eff. serials 7003 thru 7741)						1	1		0311618-7	Se
Cover Assembly - Seat back (Eff. serials 7742 & on)						1	1		0311618-76	Se
Assembly - Seat cushion (Eff. serials 7742 & on)						1	1		0311618-87	Cove
- Seat						1	1	-3	0311618-6	Carp
- Seat upholstery trim left						1	1	-4	0311619	Stri
- Seat upholstery trim right						1	1	-5	0311619-1	Stri
- (Attach trim strip)						8	8	-6	PK76XZ-8-8	Scre
- Seat upholstery trim						2	2	-7	0311618-12	Stri
Rail Assist Assembly - Seat						1	1	-8	0311618-100	Robe
- (Attach assist rail) (AU-VE-CO nickle plated)						2	2	-9	10-32 x 5/8	Scre
- Robe rail attachment						2	2	-10	0311301-10	Plat
- (Attach robe rail)						2	2	-11	AN362-F1032	Nutp
Assembly - Safety						1	1	-12	0311710-6	Belt
- (Attach stirrup to seat)						2	2	-13	AN4-10A	Bolt
- Stirrup						2	2	-14	NAS43C-4-28	Bush
- Cover plate						2	2	-15	0311711	Brac
- (Attach bracket)						6	6	-16	NAS221-8	Scre
Assembly - Pilot & Co-pilot (less upholstery)						1	1	-17	0311301	Seat
- Spring - Seat						4	4	-18	0311301-4	Se
-20 0311312 Housing - Roller									4	4
-21 0311310 Roller - Seat									4	4
-22 0311586 Bushing - Seat roller									4	4
-23 AN3-13A Bolt - (Attach roller)									4	4
-24 AN365-1032 Nut - (Attach roller)									4	4
-25 AN960-10 Washer									4	4
-26 0311668 Handle - Seat adjustment left									1	1
-27 0311668-1 Handle - Seat adjustment right									1	1
-28 0311644 Clevis - Seat latch pin									2	2
-29 AN392-15 Pin - Clevis									4	4
-30 AN380-2-1 Pin - Cotter									4	4
-31 AN380-4-3 Pin - Cotter									2	2
-32 0310196-2 Spring - Seat latch									2	2
-33 0311311 Pin - Seat latch									2	2
-34 0311498 Guide - Latch pin									2	2
-35 0311673 Bracket - Torque tube support									2	2
-36 0311649 Tube - Torque									1	1
-37 PK76XZ-8-7 Screw - (Attach bracket)									8	8
-38 NAS395-14-3 Nutplate - (Tinnerman A1274-8Z-3)									8	8
-39 0411986-2 Fire Extinguisher & Bracket									1	1
-40 AN507-832RE Screw									4	4
-41 AN365-832 Nut									4	4





ILLUSTRATED PARTS CATALOG

(47)



(57)

-67	P.S.M.-15	Circuit Breaker - (Klixon) 15 amps	2	2
-68	P.S.M.-25	Circuit Breaker - (Klixon) 25 amps	4	4
-69	P.S.M.-40	Circuit Breaker - (Klixon) 40 amps	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

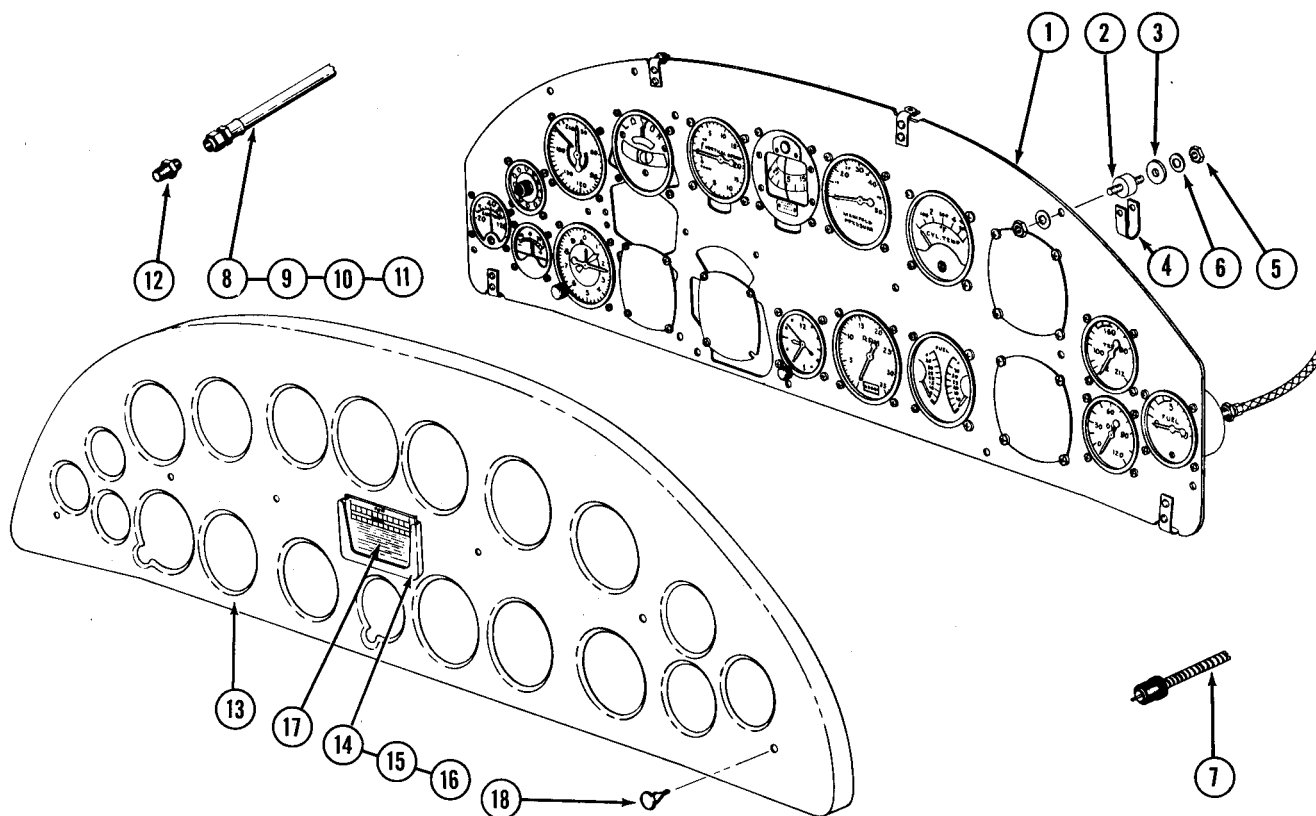


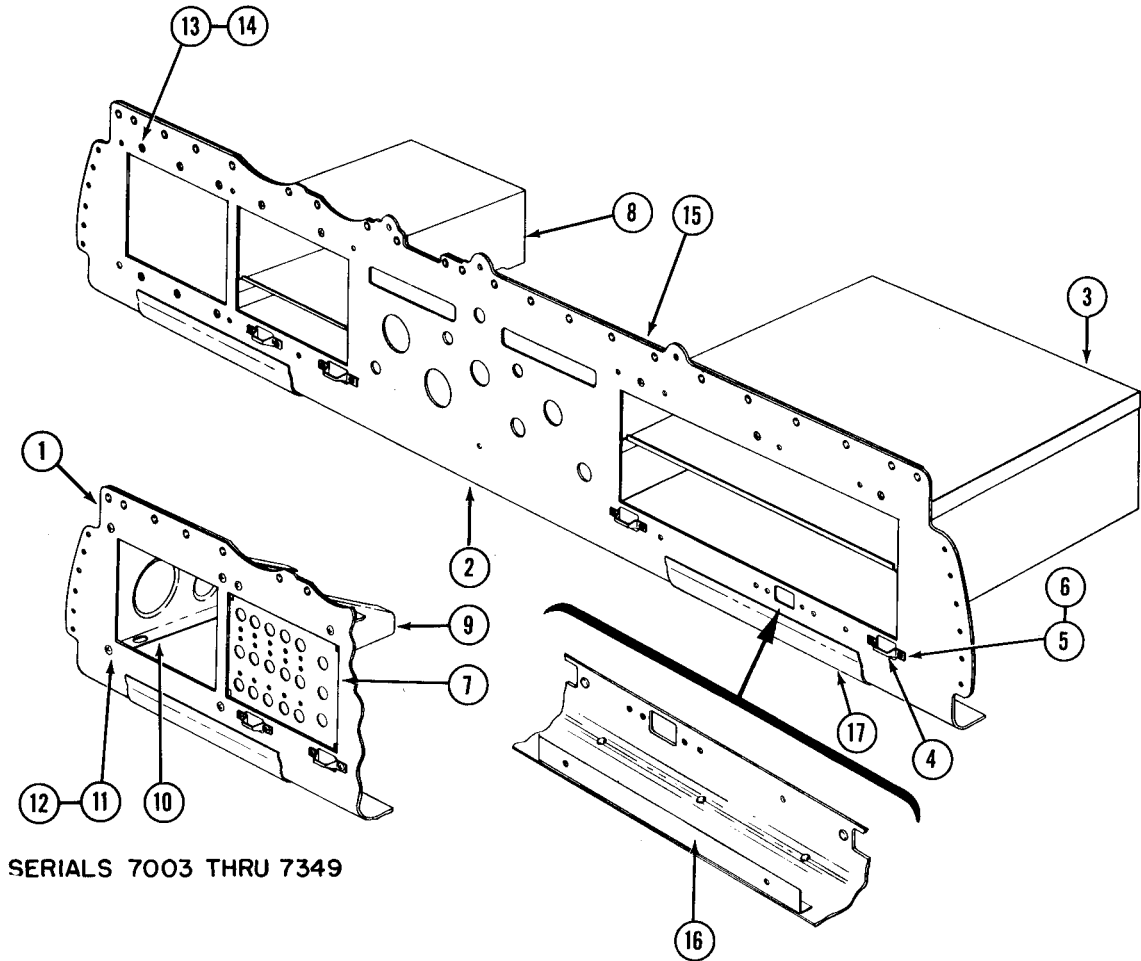
FIGURE 43—INSTRUMENT PANEL INSTALLATION—SHOCK MOUNTED

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Panel Installation - Shock mounted (3011447)	Ref	Ref
	0311447-9	Panel Assembly - Shock mounted (190) (see figure 45 for breakdown)	1	
43-1	0311447-10	Panel Assembly - Shock mounted (195) (see figure 45 for breakdown)		1
-2	0411059-1	Shock Mount - Instrument panel	7	7
-3	0311585	Spacer - Shock mount	4	4
-4	0413247-1	Ground - Shock panel	2	2
-5	AN340-8	Nut - (Attach shock panel)	14	14
-6	AN936-A8	Washer - (Attach shock panel)	14	14
-7	0450017-12	Shaft - Tachometer drive	1	1
-8	0350255-2	Hose - Oil pressure gage	1	1
-9	0350255-3	Hose - Manifold pressure gage	1	1
-10	0350255-4	Hose - Fuel pressure gage	1	1
-11	0350255-4	Hose - Fuel pressure gage (Eff. serials 7045, 7273, 7363, & on)	1	1
-12	AN816-2D	Nipple - Flared tube & pipe thread	3	3
-13	0311558-3	Cover Assembly - Shock panel	1	1
-14	0311672	Trim - Compass card holder	1	1
-15	0311669	Holder - Compass card	1	1
-16	PK76XZ-4-4	Screw - (Attach holder)	1	1
-17	0311670	Card - Compass (Eff. serials 7083 thru 7082)	1	1
	0311775-1	Card - Compass (Eff. serials 7085 thru 7444)	1	1
	0311775-2	Card - Compass (seaplane) (Eff. serials 7183 thru 7544)	1	1
	0311856-1	Card - Compass (Eff. serials 7445 & on)	1	1
	0311856-2	Card - Compass (seaplane) (Eff. serials 7445 & on)	1	1
-18	49265-F52	Fastener - United Carr (Attach cover) (Eff. serials 7287 & on)	6	6

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG



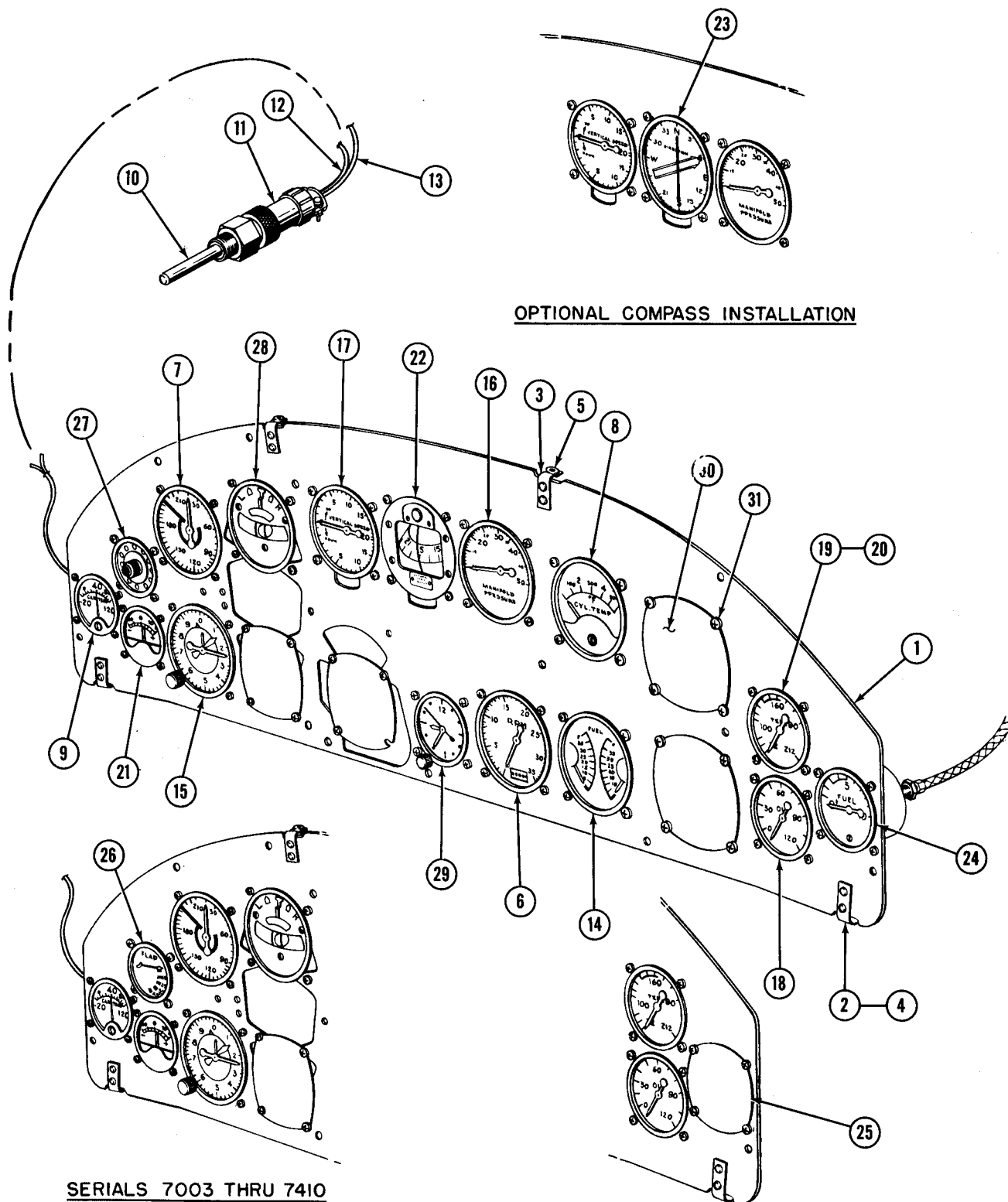
SERIALS 7003 THRU 7349

FIGURE 44-PANEL ASSEMBLY-STATIONARY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0311480	Panel Assembly - Stationary (Eff. serials 7003 thru 7349) (see figure 21 for NHA)	Ref	Ref
	0311808	Panel Assembly - Stationary (Eff. serials 7350 & on) (see figure 21 for NHA)	Ref	Ref
44-1	0311481	Panel - Stationary (Eff. serials 7003 thru 7349)	1	1
-2	0311809	Panel - Stationary (Eff. serials 7350 & on)	1	1
-3	0311567	Box Assembly - Glove compartment	1	1
-4	0311563	Hinge - Glove compartment door	4	4
-5	PK76XZ-8-6	Screw - (Attach hinge and box)	12	12
-6	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)	12	12
-7	0311579	Box Assembly - Circuit breaker (Eff. serials 7003 thru 7349)	1	1
-8	0311805	Box Assembly - Compartment (Eff. serials 7350 & on)	1	1
-9	0311638	Bracket - Radio mount (Eff. serials 7003 thru 7349)	1	1
-10	0311638-1	Bracket Assembly - Radio mount (Eff. serials 7003 thru 7349)	1	1
-11	AN515-8R8	Screw - (Attach bracket) (Eff. serials 7003 thru 7349)	4	4
-12	AN365-832	Nut - (Attach bracket) (Eff. serials 7003 thru 7349)	4	4
-13	AN526-832R8	Screw - (Attach bracket) (Eff. serials 7350 & on)	6	6
-14	AN365-1032	Nut - (Attach bracket) (Eff. serials 7350 & on)	6	6
-15	0311553	Angle - Stiffener	1	1
-16	0311639	Angle - Assist handle	2	2
-17	0311640	Clip - Assist handle	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



SERIALS 7003 THRU 7410

SERIALS 7045 THRU 7272 & 7363 & ON

FIGURE 45-INSTRUMENT PANEL ASSEMBLY-SHOCK MOUNTED

k Mounted

	UNITS REQUIRED ON MODELS	
	190	195
2 for NHA) (serials 7411 & on)	Ref	
2 for NHA) (serials 7411 & on)		Ref
on)	1	1
on)	2	2
	2	2
	2	2
ls 7901 thru 16080)	1	1
ls 16181 & on)	1	
ls 16181 & on)		1
ls 16181 & on)		1

FIGURE AND REF. NO.	PART NUMBER	PART NAME	1	2	3	4	5	6
	0311447-9	Panel Assembly - Shock (190) (see figure						
	0311447-10	Panel Assembly - Shock (195) (see figure						
45-1	0311557-3	Panel - Shock mounted instrument						
-2	0311556-3	Clip - (Attach cover) (serials 7003						
-3	0311556-5	Clip - (Attach cover) (serials 7003						
-4	NAS395-14-3	Nutplate - (Serials 7003 & on)						
-5	AN931-3-5	Grommet - (Serials 7003 & on)						
-6	0311014-22	Tachometer - Standard equipment (ser						
	0311014-6	Tachometer - Standard equipment (ser						
	0311014-8	Tachometer - Standard equipment (ser						
	0311060-3	Tachometer - Standard equipment (ser						
	0311015-1	Indicator - Airspeed (serials 7003 thru 16080)						
-7	0311015-3	Indicator - Airspeed (serials 7451 thru 16083)						
	0311015-4	Indicator - Airspeed (serials 16084 & on)						
-8	0311018-2	Gage - Cylinder head temperature (195 only)						
	0311018-4	Gage - Cylinder head temperature (190) only)						
	0311018-7	Lead - Thermocouple to gage						
-9	0311020-5	Gage - Carburetor air temperature (190 only)						
	0311020-6	Gage - Carburetor air temperature (195 only)						
	0311020-10	Wire Assembly - Carburetor air temperature						
-10	0311020-7	Bulb - Carburetor air temperature (see figure 58)						
-11	AN3106-125-35	Plug - Carburetor air temperature						
-12	030000-108	Wire - Plug to gage						
-13	030000-109	Wire - Plug to gage						
-14	0311021-1	Indicator - Fuel quantity						
-15	0311026-1	Altimeter - Sensitive						
-16	0311029-1	Gage - Manifold Pressure						
-17	0311034-1	Indicator - Vertical speed						
-18	0311035-3	Gage - Oil pressure						
-19	0311036-1	Gage - Oil temperature						
-20	AN365-B632	Nut - (Attach oil temperature gage)						
	0311037-50	Ammeter Kit						
	NAF1091-1-60	Shunt - Generator (see figure 42 item 36)						
-21	0311037-5	Ammeter - (Serials 7532 & on)						
-22	0311040-1	Compass - Magnetic						
-23	0311016	Indicator - Directional (optional) (interchangeable with compass)						
-24	0311045-1	Gage - Fuel pressure (serials 7003 thru 7271)						
	0311045-2	Gage - Fuel pressure (serials 7003 thru 7045, 7273 & 7363 & on)						
-25	0413206	Cover - Fuel pressure gage opening (serials 7045 thru 7272, & 7363 & on)						
-26	0311047-1	Indicator - Flap (serials 7003 thru 7410)						
-27	1-02-000	Indicator - Stall warning (serials 7411 & on)						
-28	0411009-2	Indicator - Turn & bank						
-29	0411010-2	Clock						
-30	0311789	Cover - Optional instrument hole						
-31	AN515-8R8	Screw - (Attach cover)						

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

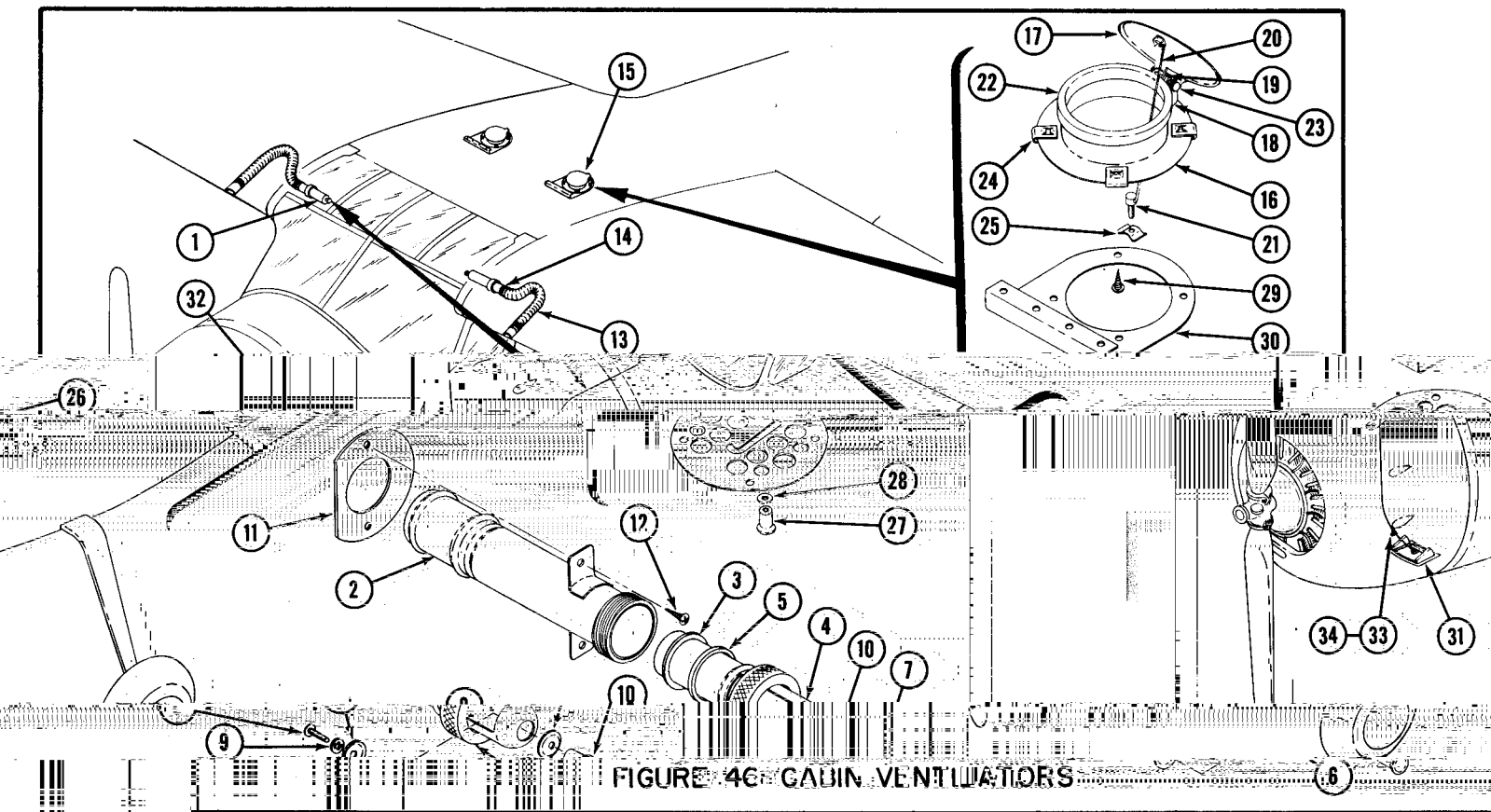


FIGURE 46 CABIN VENTILATORS

FIGURE
ANDUNITS REQUIRED
ON MODELS



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FIGURE 48

JACOBS ENGINE INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

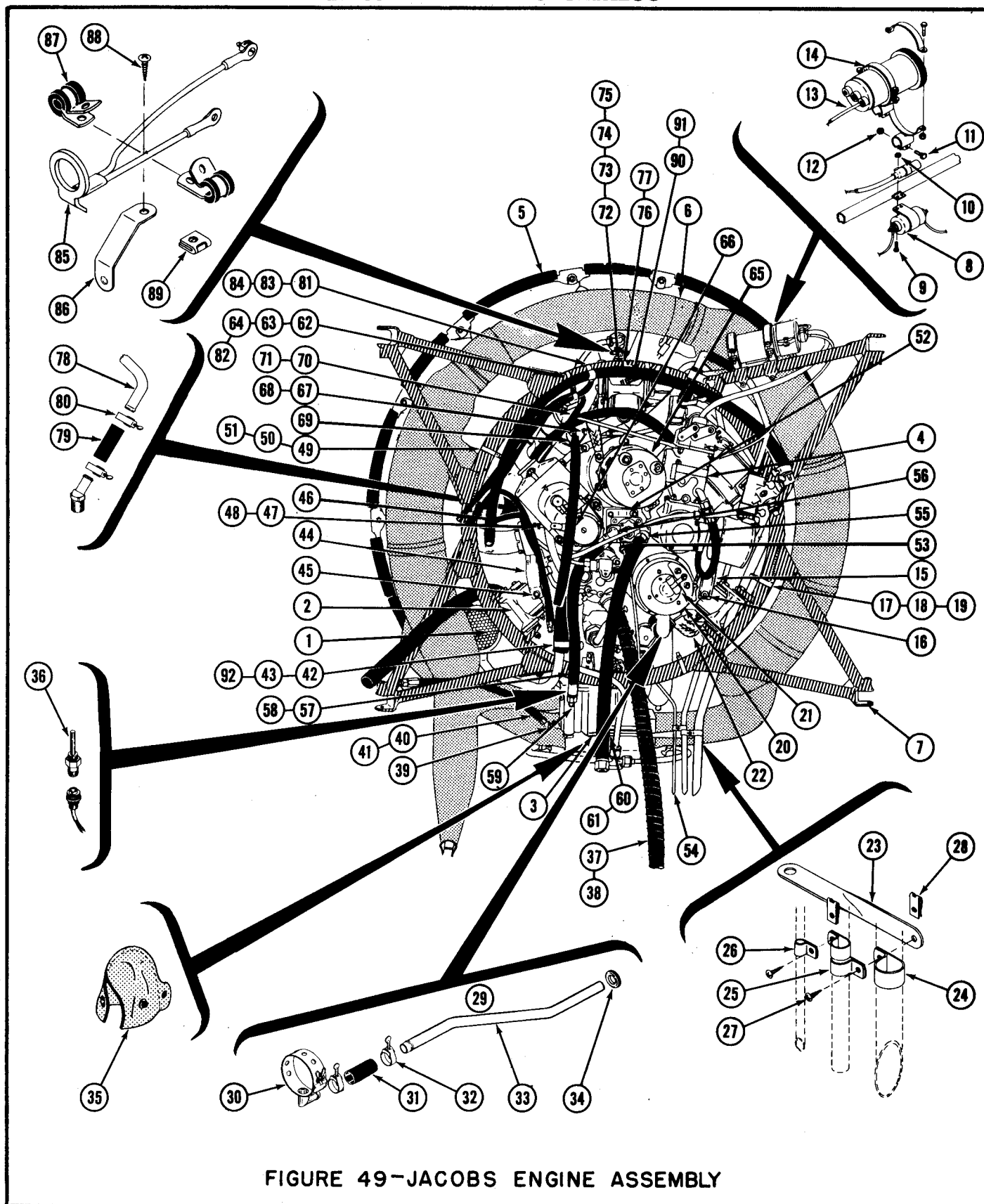


FIGURE 49-JACOBS ENGINE ASSEMBLY

ILLUSTRATED PARTS CATALOG

FIGURE 49

JACOBS ENGINE ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	0350100	Engine Assembly - Jacobs R-755-A2		Ref
49-1		Regulator Installation - Oil temperature (see figure 50)		1
-2		Mount Installation - Dynafocal engine (see figure 51)		1
-3		Valve Installation - Carburetor hot & cold air (see figure 53)		1
-4		Governor Installation - Propeller		1
-5		Baffle Installation - Jacobs engine (see figure 54)		1
-6		Stack Installation - Exhaust (see figure 55)		1
-7	0351101	Mount - Engine		1
-8	21P483	Capacitor - Ignition coil (optional)		1
-9	AN526-832R8	Screw - (Attach capacitor)		2
-10	AN365-832	Nut - (Attach capacitor)		2
-11	AN4-7A	Bolt - (Attach clamp)		1
-12	AN365-428	Nut - (Attach clamp)		1
-13	0300005-51	Wire - Ignition coil		1
-14	0350109	Clamp Assembly - Ignition coil		2
-15	0350133	Bracket - Throttle control		1
-16	AN960-716	Washer		2
-17	AN735D20	Clamp		3
-18	NAS435-D4	Clamp		3
-19	PK76XZ-8-8	Screw - (Attach clamp)		3
-20	309-8A	Generator - (Eclipse - Pioneer Division) (25 amp)		1
-21	0411081	Suppressor - Generator noise		1
-22	0412007-21	Strap - Bonding		3
-23	0350258	Support - Lower breather line clamp		1
-24	AN755-12	Clamp		1
-25	NAS434-D8	Clamp - (Tinnerman A298A-8)		1
-26	NAS434-D-4	Clamp - (Tinnerman A2981A-4)		1
-27	PK76XZ-8-10	Screw - (Attach clamp)		2
-28	NAS395-24-3	Nutplate - (Tinnerman A1787-10Z-3)		2
-29	52-3-549	Kit - Generator blast tube (Eff. serials 7003 thru 7424)		1
-30	0350283-3	Strap Assembly - Generator cover	NOTE: These items were standard equipment on serials 7425 & on. To add these items to airplanes having earlier serials order Kit 52-3-549.	1
-31	AN884-16-12	Hose - Blast tube		1
-32	AN737-44	Clamp		2
-33	0300106-58	Tube - Blast		1
-34	AN931-16-22	Grommet		1
-35	0350295	Cover - Accelerator pump		1
-36	0311020-7	Bulb - Carburetor air temperature (AN5525-1)		1
-37	AN884-12-106	Hose - Aromatic (Eff. serials 7271 thru 7365)		1
	AN884-12-90	Hose - Aromatic (Eff. serials 7366 & on)		1
-38	0350100-3	Stiffener - Oil line		1
-39	AN823-2B	Elbow		1
-40	0350255-2	Hose Assembly - Fuel line		1
	0350255	Hose Assembly - Low pressure		1
-41	0350100-5	Tube - Vinylite		1
-42	AN844-12D	Elbow		2
-43	NAS397-18	Clamp		2
-44	0350134	Bracket - Carburetor mixture control		1
-45	AN960-716	Washer		2
-46	0350255-1	Hose Assembly		1
-47	AN823-2B	Elbow		1
-48	AN912-1	Reducer		1
-49	AN735D20	Clamp		2
-50	NAS435-2D	Clamp		2
-51	PK76XZ-8-8	Screw - (Attach clamp)		2
-52	0350284	Pump - Fuel (Pesco 2PR-400 BLYA)		1
-53	AN822-4D	Elbow		1
-54	0300106-33	Line - Fuel pump drain		1
-55	AN822-8D	Elbow		1
-56	AN823-8D	Elbow		1
-57	0350263-1	Hose - Fuel pump to carburetor		1
-58	0350100-7	Tube - Vinylite		1
-59	AN823-8D	Elbow		1
-60	0350276-1	Hose Assembly - Fuel pump to strainer		1
-61	0350100-6	Tube - Vinylite		1
-62	AN735D20	Clamp		1
-63	NAS435-8D	Clamp		1
-64	PK76XZ-8-10	Screw - (Attach clamp)		1
-65	E80	Starter - (Eclipse Pioneer Series 397-13)		1
-66	AN884-6-80	Hose - Oil line		1
-67	NAS397-12	Clamp		1
-68	AN844-6D	Elbow		1
-69	AN912-2	Reducer		1
-70	0350255-1	Hose Assembly - Oil line		1
-71	AN823-2B	Elbow		1
-72	AN3-20A	Bolt		1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

FIGURE 49

JACOBS ENGINE ASSEMBLY (CONTINUED)

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

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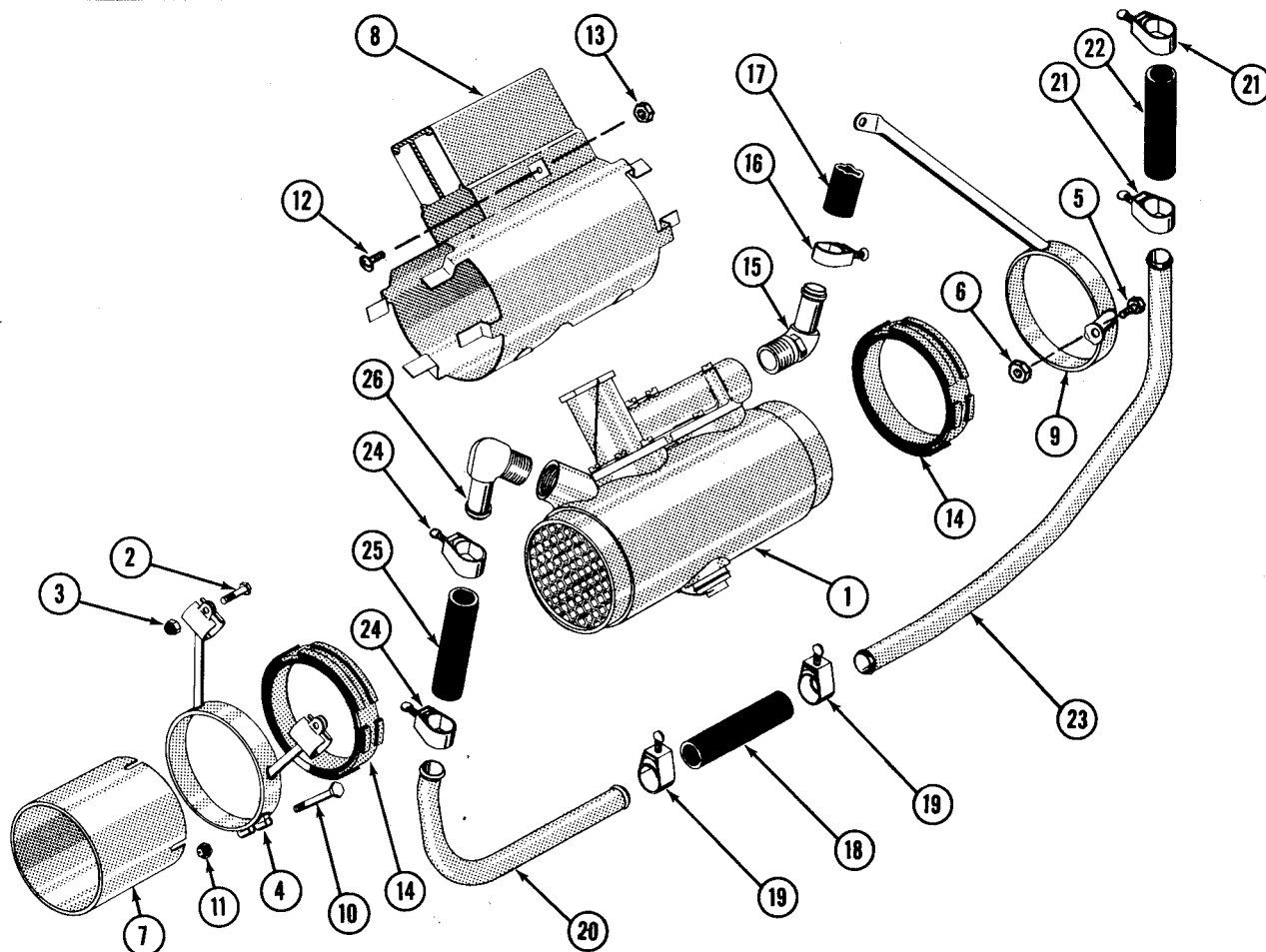


FIGURE 50— OIL TEMPERATURE REGULATOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Regulator Installation - Oil temperature (see figure 49 for NHA)		Ref
50-1	0350260-4	Regulator - Oil temperature (serials 16091 & on)		1
-2	AN3-15A	Bolt - (Attach regulator)		1
-3	AN365-1032	Nut - (Attach regulator)		1
-4	0350123	Bracket Assembly - Oil temperature regulator front		1
-5	AN4-7A	Bolt - (Attach bracket)		2
-6	AN365-428	Nut - (Attach bracket)		2
-7	0350265	Scoop - Oil temperature regulator air		1
-8	0350199	Shield Assembly - Oil temperature regulator		1
-9	0350126	Bracket Assembly - Oil temperature regulator rear		1
-10	AN3-15A	Bolt - (Attach bracket)		1
-11	AN365-1032	Nut - (Attach bracket)		1
-12	PK76XZ-8-6	Screw - (Attach shield)		1
-13	NAS446-4	Nut - (Attach shield)		1
-14	0350142-4	Pad - Bracket rear		1
	0350142-4	Pad - Bracket front		1
-15	AN844-12D	Elbow		1
-16	NAS397-18	Clamp		1
-17	AN884-12-48	Hose		1
-18	AN884-12-12	Hose		1
-19	NAS397-18	Clamp		2
-20	0300106-31	Line - Oil		1
-21	NAS397-18	Clamp		2
-22	AN884-12-12	Hose		1
-23	0300106-30	Line - Oil		1
-24	NAS397-18	Clamp		2
-25	AN884-12-12	Hose		1
-26	AN842-12D	Elbow		1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

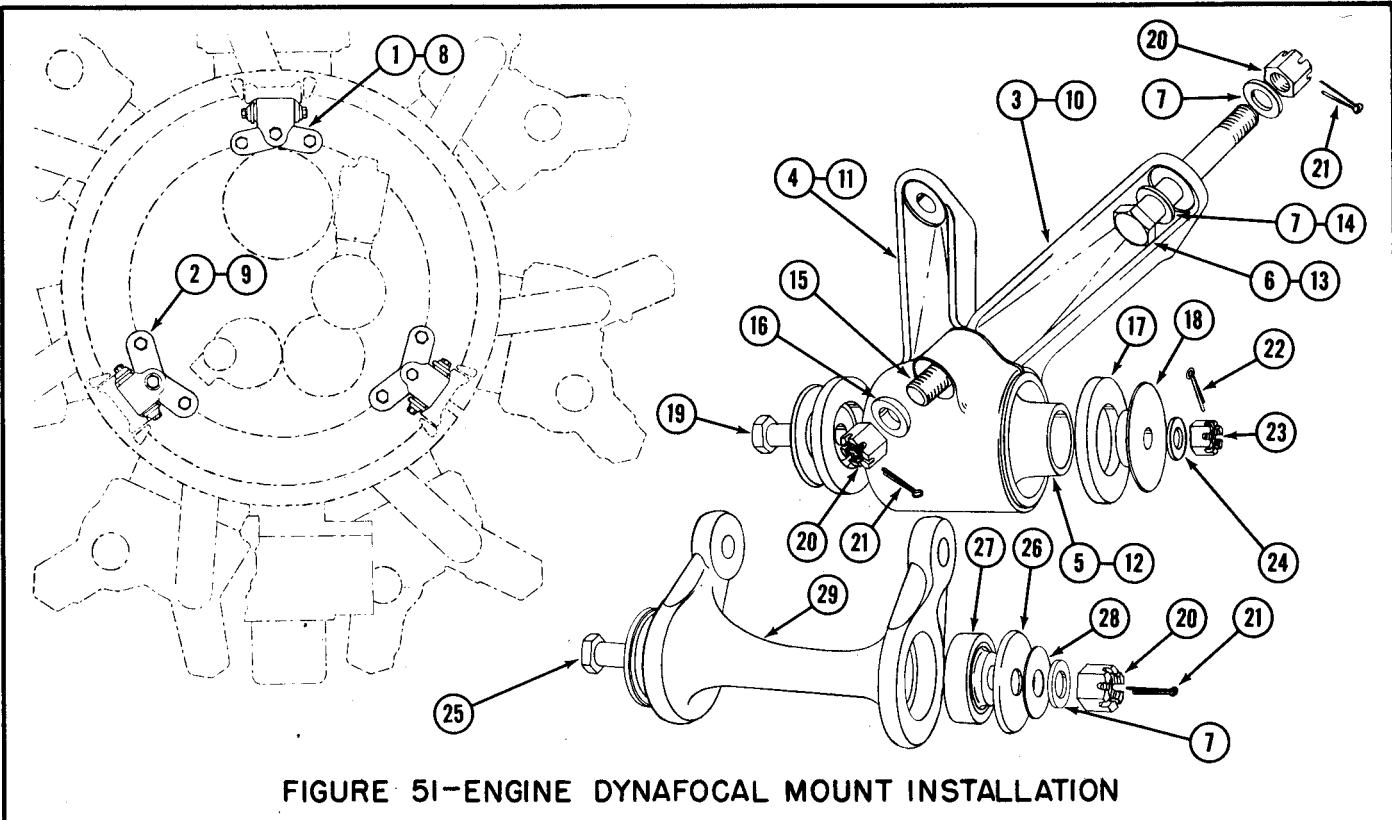


FIGURE 51-ENGINE DYNAFOCAL MOUNT INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	RL-15E	Engine Mount - Lord Manufacturing Co. (Complete set of 3 for Jacobs engine)		1
51-1	RL-15E-SA1	Engine Mount - Upper (Same as RL-15F-SA1 except as shown)		1
-2	RL-15E-SA2	Engine Mount - Sides (Same as RL-15F-SA2 except as shown)		2
-3	RL-15-63	Mounting Bracket - Top		1
-4	RL-15-64	Mounting Bracket - Sides		2
-5	RL-15-37	Dynafocal Mount - Rubber		1
-6	RL-15-65	Bolt - Bracket		2
-7	RL-15-8	Washer		5
	RL-15F	Engine Mount - Lord Manufacturing Co. (complete set of 3 for Continental engine)	1	
-8	RL-15F-SA1	Engine Mount - Upper	1	
-9	RL-15F-SA2	Engine Mount - Sides	2	
-10	RL-15-59	Mounting Bracket - Top	1	
-11	RL-15-60	Mounting Bracket - Sides	2	
-12	RL-15-45	Dynafocal Mount - Rubber	1	
-13	RL-15-33	Bolt - Bracket	2	
-14	RL-15-36	Washer	5	
-15	AN6-21 *	Bolt - Clamp	1	1
-16	RL-15-61 *	Washer - Spherical	2	2
-17	RL-15-38 *	Washer - Snubbing	2	2
-18	RL-15-13 *	Mounting End Plate	2	2
-19	RL-15-14 *	Bolt - Mounting	1	1
-20	RL-15-7 *	Nut - Slotted	4	4
-21	RL-15-11 *	Pin - Cotter	4	4
-22	RL-15-17 *	Pin - Cotter	1	1
-23	RL-15-15 *	Nut - Slotted	1	1
-24	RL-15-16 *	Washer - Mounting bolt	1	1
-25	RL-15-6 *	Bolt - Bearing	1	1
-26	RL-15-21 *	Cap - Bearing	2	2
-27	RL-15-5 *	Bearing - Tapered roller	2	2
-28	RL-15-9 *	Shim - Bearing bolt (.020)	AR	AR
	RL-15-10 *	Shim - Bearing bolt (.013)	AR	AR
	RL-15-25 *	Shim - Bearing bolt (.008)	AR	AR
-29	RL-15-4A *	Link - 1-1/3 inch	1	1
		* Parts identical on Jacobs and Continental engine mounts.		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

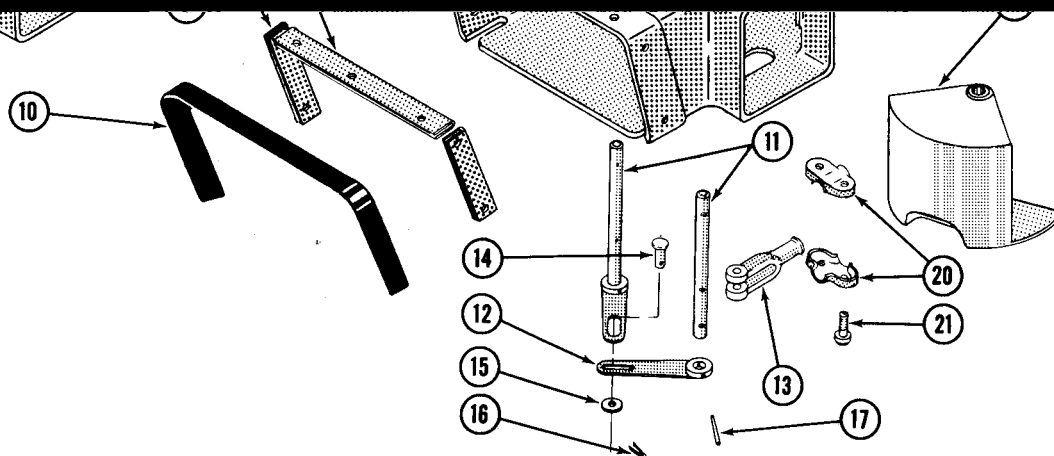
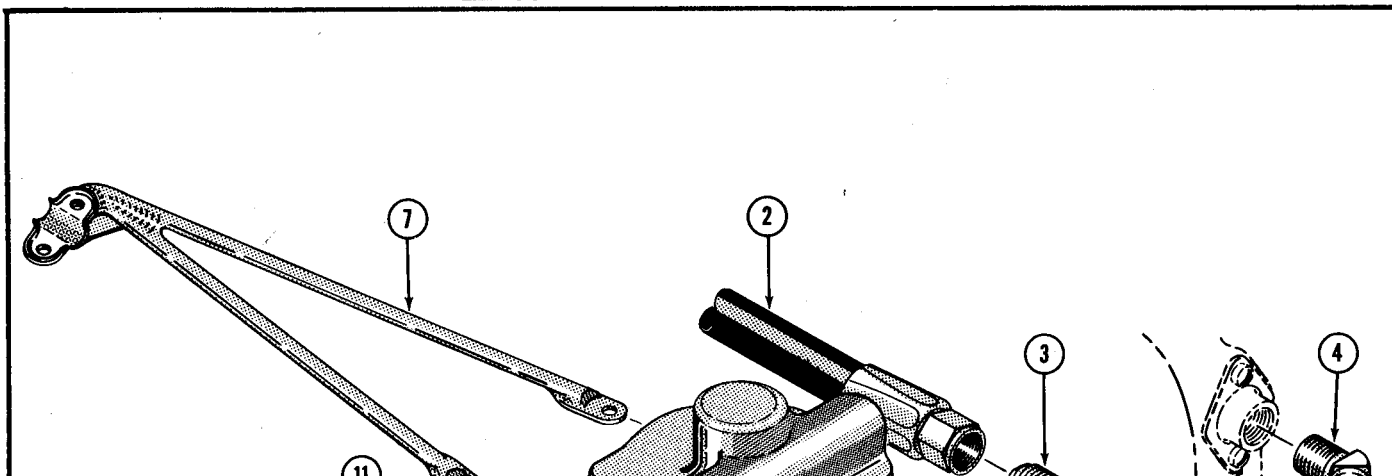


FIGURE 52-CARBURETOR HOT & COLD AIR VALVE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME							UNITS REQUIRED ON MODELS	
			1	2	3	4	5	6	190	195
		Valve Installation - Carburetor hot and cold air (see figure 49 for NHA)								Ref
52-1	AN75A6	Bolt - (Attach valve)								4
-2	0350100-4	Gasket - Valve mounting								1
-3	0350165	Valve Assembly - Carburetor hot and cold air								1
-4	0350165-3	Housing - Carburetor air valve								1
-5	NAS295-5	Bearing - Carburetor air valve								4
-6	0350256	Vane - Intake upper								1
-7	0350257	Vane - Intake lower								1
-8	0413271-20	Retainer - Seal upper								1
-9	0413271-21	Retainer - Seal sides								2
-10	0411815	Seal								AR
-11	0350274	Shaft - Carburetor air valve								2
-12	0350167	Arm Assembly - Air valve								2
-13	AN486-1	Clevis								1
-14	AN394-17	Pin - Clevis								1
-15	AN960-416L	Washer								1
-16	AN380-2-2	Pin - Cotter								1
-17	AN385-50-6	Pin - Taper								6
-18	0350166	Valve - Left carburetor air intake								2
-19	0350166-1	Valve - Right carburetor air intake								1
-20	0350156	Clamp - Control								4
-21	AN502-10-14	Screw - (Attach clamp)								4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



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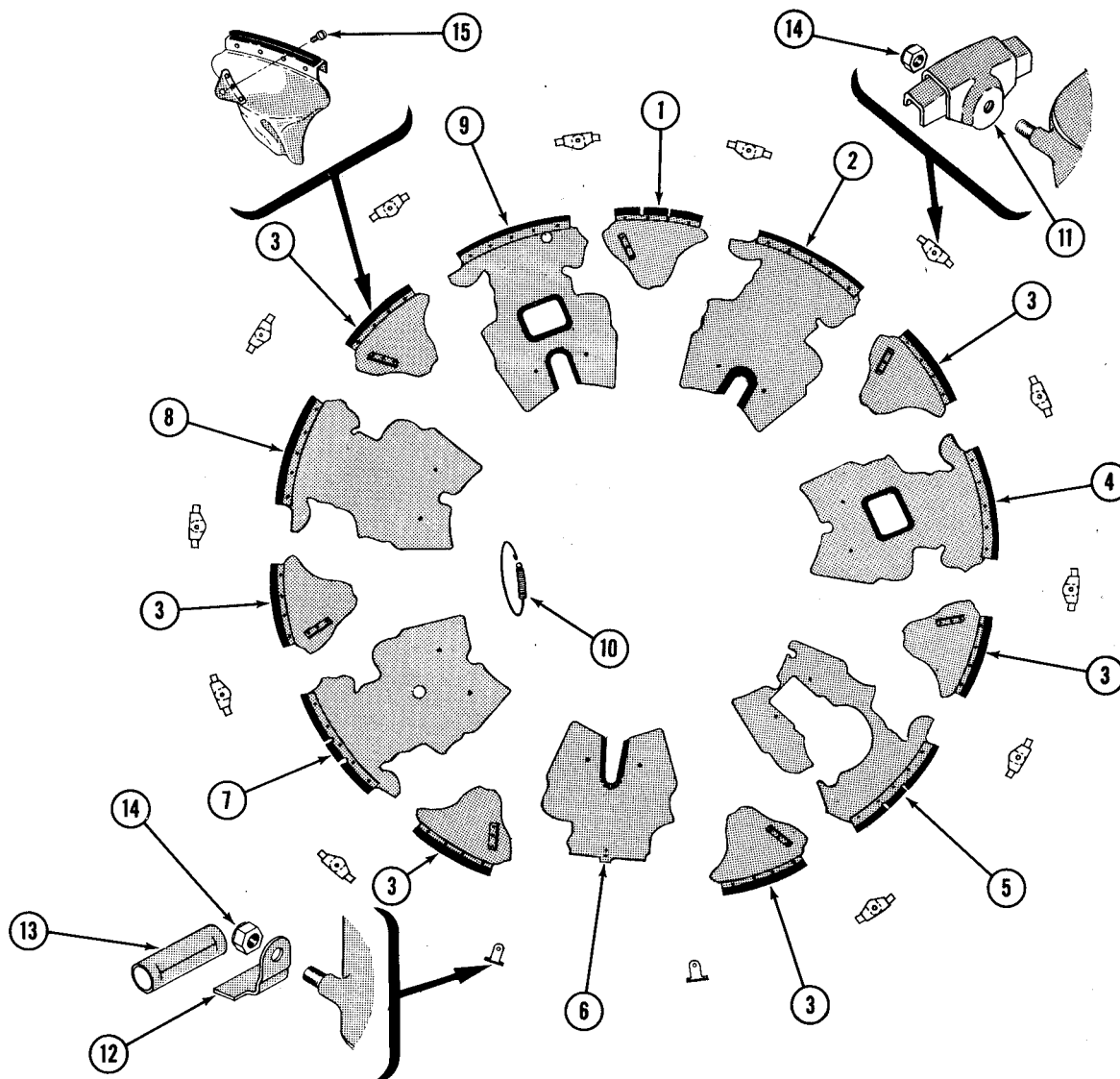


FIGURE 54-JACOBS ENGINE BAFFLE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Baffle Installation - Jacobs engine (see figure 49 for NHA)							Ref
54-1	0350238-3	Baffle Assembly							1
-2	0350182	Baffle Assembly							1
-3	0350238	Baffle Assembly							6
-4	0350181	Baffle Assembly							1
-5	0350227	Baffle Assembly							1
-6	0350175	Baffle Assembly							1
-7	0350179	Baffle Assembly							1
-8	0350177	Baffle Assembly							1
-9	0350172	Baffle Assembly							1
-10	S-4-26	Spring - Baffle							7
-11	0352120-3	Lug - Cowl mounting							12
	0352175	Lug Assembly - Cowl support lower							2
-12	0352175-2	Lug							1
-13	0352175-3	Sleeve							1
-14	AN365-524	Nut - (Attach lug)							14
-15	AN503-416-8	Screw - (Attach baffle)							7

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

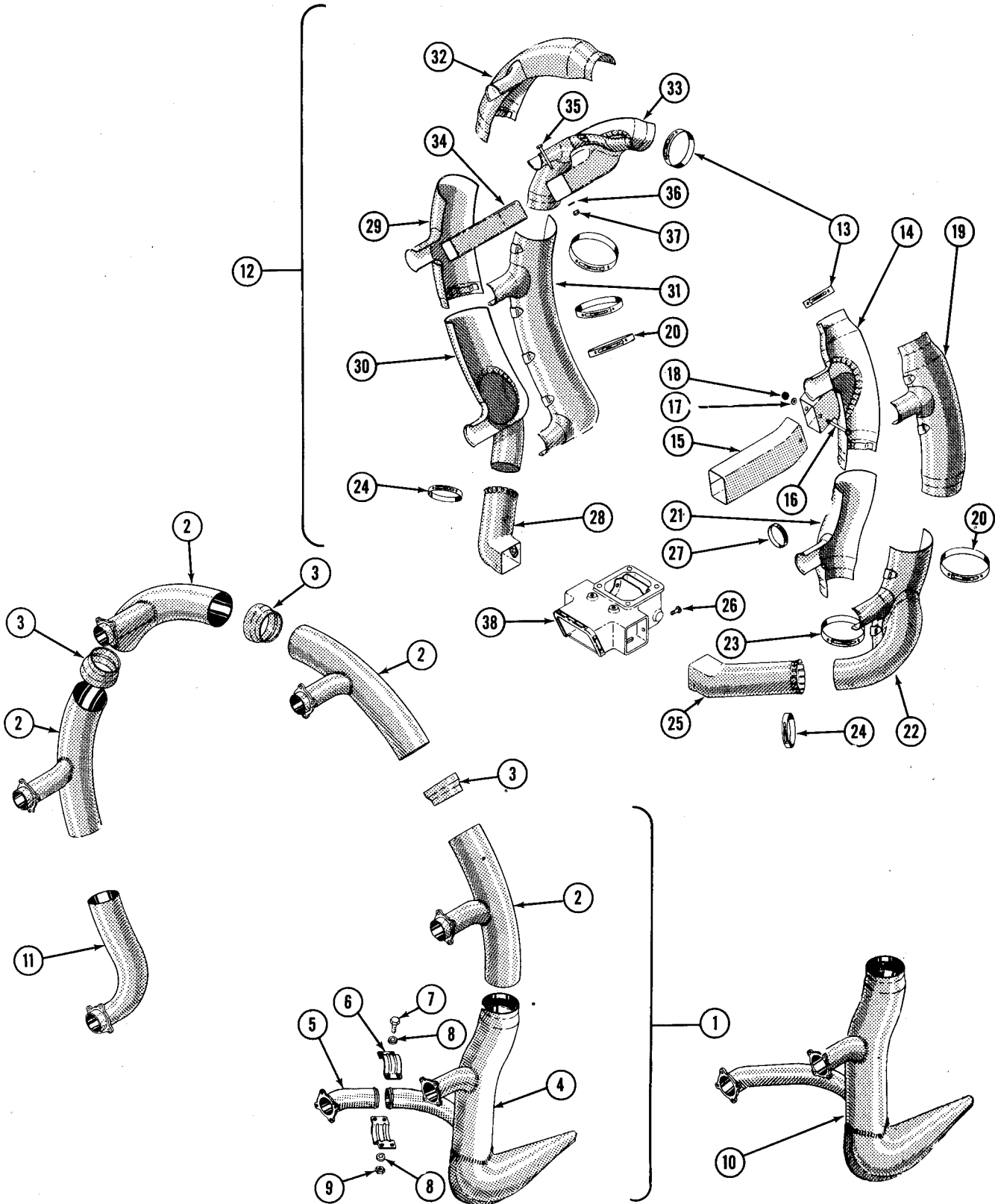


FIGURE 55—JACOBS EXHAUST STACK INSTALLATION

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FIGURE 55

JACOBS EXHAUST STACK INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Stack Installation - Exhaust (see figure 49 for NHA)		Ref
55-1	0350100-22	Stack Kit - Exhaust (Eff. serials 7724 & on)		1
	0350100-10	Stack Kit - Exhaust (Eff. serials 7003 thru 7723)		1
-2	0350187	Stack Assembly - Exhaust segment and bayonet stack (7724 & on)		4
	0350163	Segment - Exhaust stack (Eff. serials 7003 thru 7723)		4
-3	0350143	Sleeve - Exhaust stack segment (Eff. serials 7003 thru 7723)		3
	0350240-1	Segment - Exhaust segment and bayonet stack		1
-4	0350240-3	Segment Assembly - Exhaust manifold		1
-5	0350186-8	Tube - Inlet		1
-6	0350186-20	Clamp - Exhaust stack		2
-7	AN3-5A	Bolt - (Attach clamp)		4
-8	AN960-10	Washer - (Attach clamp)		8
-9	AN365-1032C	Nut - (Attach clamp) (serials 7003 thru 7723)		4
-10	0350240	Segment - Exhaust manifold and bayonet stack (serials 7003 thru 7723) (when exhausted use 0350240-1)		1
-11	0350161	Segment - Exhaust stack		1
-12	0350100-11	Muff Kit - Hot air		1
-13	NAS398-53P	Clamp - (Attach muff to stack)		2
-14	0350207	Muff Assembly - Upper left inside		1
-15	0350209	Duct - Air inlet		1
-16	AN3-26A	Bolt - (Attach duct)		1
-17	AN960-10	Washer		1
-18	AN365-1032	Nut - (Attach duct)		1
-19	0350206	Muff Assembly - Upper left outside		1
-20	NAS398-75P	Clamp - (Attach muff to stack)		4
-21	0350205	Muff Assembly - Lower left inside		1
-22	0350204	Muff Assembly - Lower left outside		1
-23	NAS398-62P	Clamp - (Attach connector to muff)		1
-24	NAS398-50P	Clamp - (Attach connector to muff)		2
-25	0350234	Connector Assembly - Left		1
-26	AN500-8-7	Screw - (Attach connector to valve)		2
-27	NAS397-36P	Clamp - (Attach muff valves)		5
-28	0350233	Connector Assembly - Right		1
-29	0350224-6	Segment - Lower right outside muff upper		1
-30	0350224-7	Segment - Lower right outside muff lower		1
-31	0350225	Muff Assembly - Lower right inside		1
-32	0350222	Muff Assembly - Upper right outside		1
-33	0350266	Muff Assembly - Upper right inside		1
-34	0350226-11	Duct - Air inlet		1
-35	AN3-26A	Bolt - (Attach duct)		1
-36	AN960-10	Washer		1
-37	AN365-1032	Nut - (Attach duct)		1
-38	0350165	Valve Assembly - Carburetor hot & cold air (see figure 52)		Ref

FIGURE 56

JACOBS ENGINE COWL INSTALLATION

		Cowl Installation - Jacobs engine		1
56-1	0352126-2	Cowl Assembly - Inner upper		1
-2	0352126-12	Reinforcement - Inner cowl upper		1
-3	0352126-7	Splice - Reinforcement		1
-4	0352126-13	Splice - Reinforcement		1
-5	0352126-14	Splice - Reinforcement		1
-6	S5-200	Spring - Dzus		4
-7	A5-35	Fastener - Dzus		2
-8	AJ5-40	Fastener - Dzus		3
	GA5-375	Grommet - Dzus		5
	0352126-31	Cowl Assembly - Right inner lower		1
-9	0352126-26	Cowl Assembly - Lower left		1
-10	0352126-6	Extrusion - Reinforcement		1
-11	0352126-30	Doubler - Cowl		1
-12	S5-200	Spring - Dzus		1
-13	A5-35	Fastener - Dzus		2
-14	AJ5-40	Fastener - Dzus		2
-15	AW5-35	Fastener - Dzus		1
	GA5-375	Grommet - Dzus		5
-16	0352126-31	Cowl Assembly - Lower right		1
-17	0352126-8	Extrusion - Reinforcement		1
-18	A5-35	Fastener - Dzus		3
-19	AJ5-40	Fastener - Dzus		2
-20	AW5-35	Fastener - Dzus		1
	GA5-375	Grommet - Dzus		6
	0352126-27	Reinforcement - Cowl lower		1
	0352100	Cowl Assembly - Jacobs engine		1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

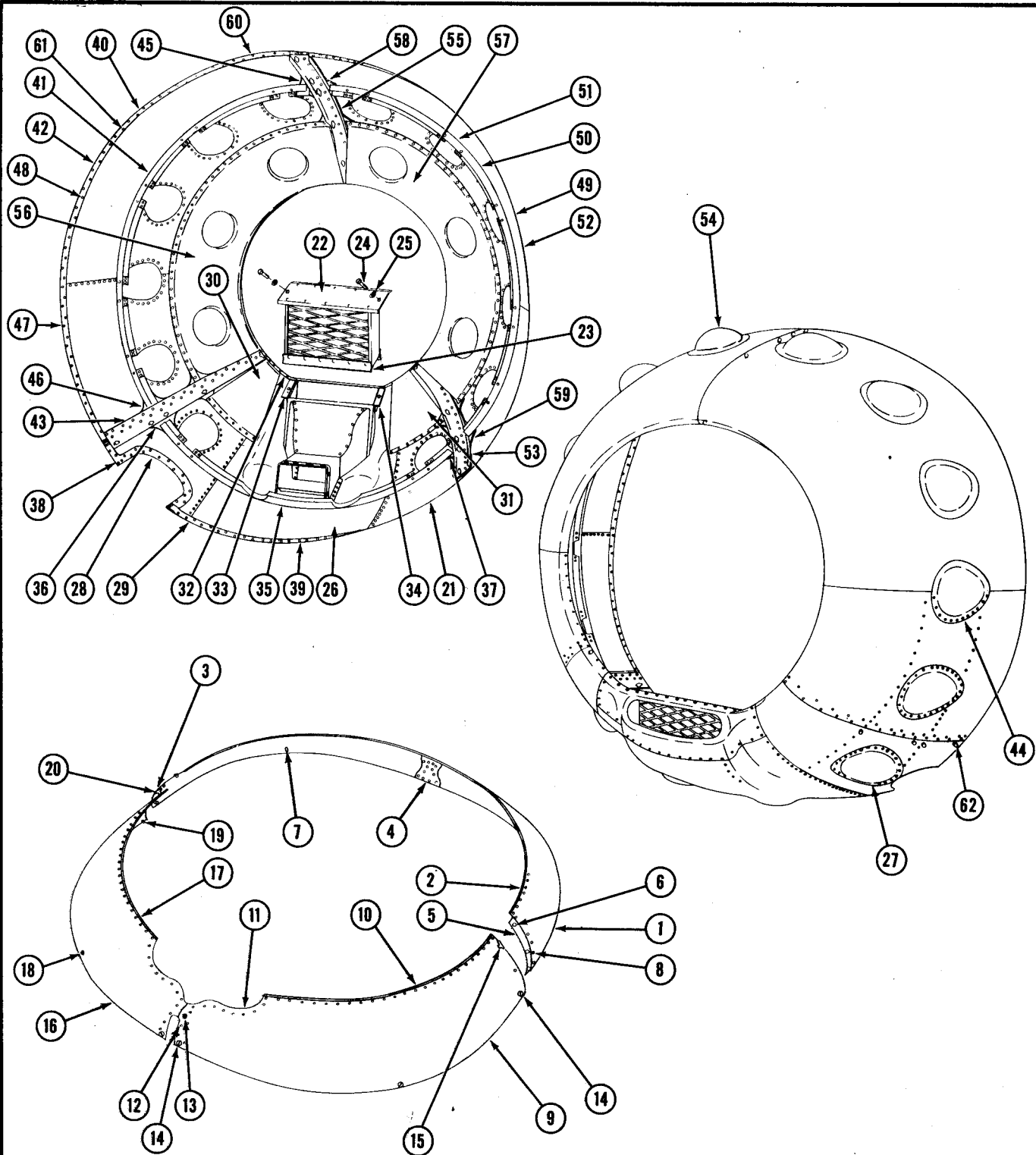


FIGURE 56—JACOBS ENGINE COWL INSTALLATION

ILLUSTRATED PARTS CATALOG

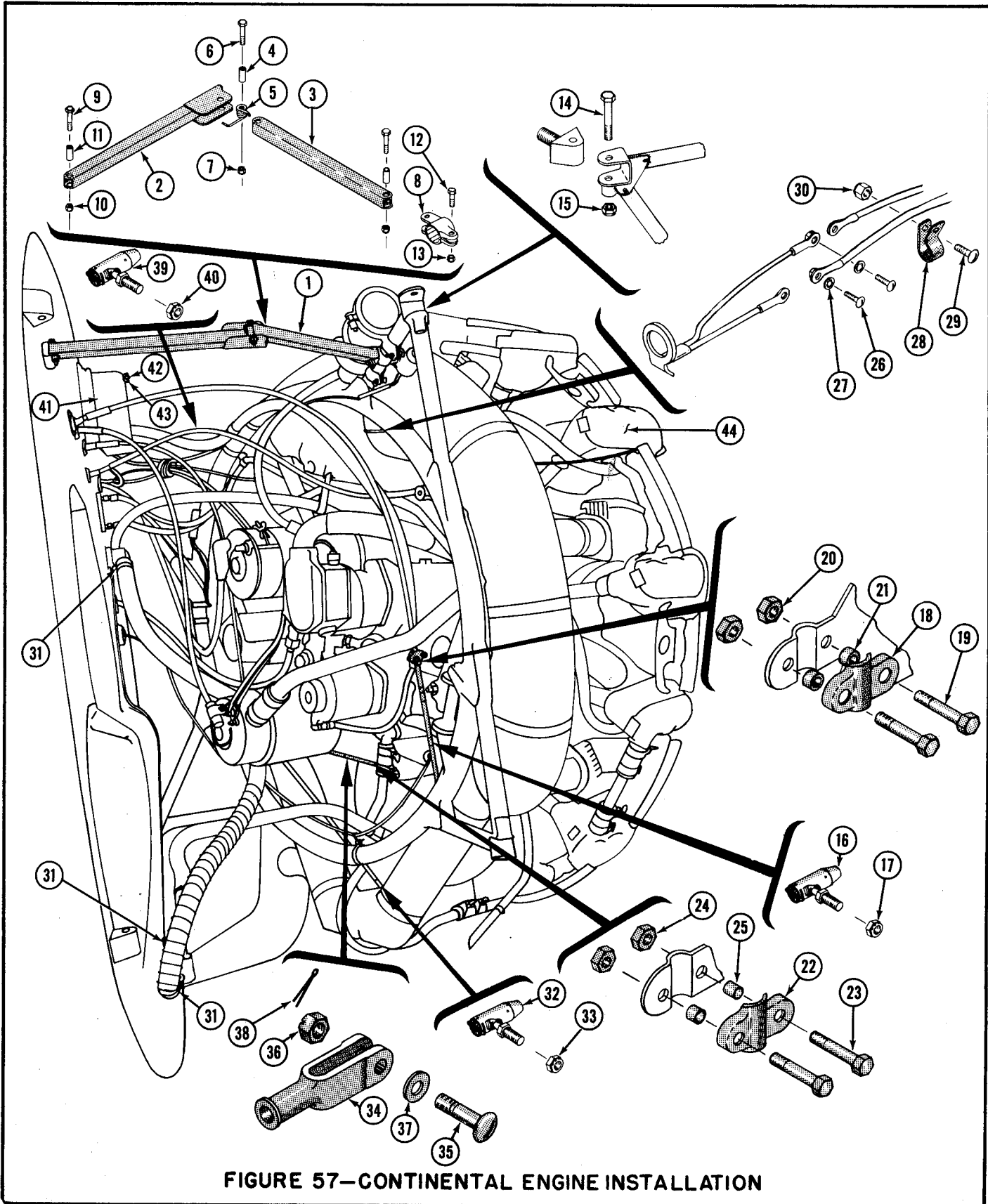
FIGURE 56

JACOBS ENGINE COWL INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
56-21	0352134				Segment - Assembly - Lower cowl				1
-22	0352145				Filter Assembly - Carburetor air				1
-23	0352142				Seal - Air filter				1
-24	AN3-5A				Bolt				2
-25	AN960-10L				Washer				2
	0352100-20				Cowl Assembly - Jacobs engine				1
-26	0352134-20				Segment Assembly - Lower cowl				1
-27	0352135				Cup - Cowl streamline				2
-28	0352113				Reinforcement - Exhaust stack				1
-29	0352116				Reinforcement - Trailing edge				1
-30	0352122-3				Diffuser - Left lower cowl				1
-31	0352122-4				Diffuser - Right lower cowl				1
-32	0352134-4				Stiffener - Center lower cowl				1
-33	0352140-5				Support Assembly - Left air filter				1
	0352140-3				Angle - Left support				1
	2600-02				Nut - (Nutt-Shel Co)				1
-34	0352140-6				Support Assembly - Right air filter				1
	0352140-4				Angle - Right support				1
	2600-02				Nut - (Nutt-Shel Co)				1
-35	0352114				Ring Assembly - Lower cowl segment support				1
	0352114-3				Rub Strip - Cowl support ring				2
	0352114-4				Rub Strip - Cowl support ring				2
	0352114-5				Rub Strip - Cowl support ring				2
	0352114-6				Ring - Lower cowl segment support				1
-36	0352127-2				Doubler - Left lower cowl segment				1
-37	0352127-3				Doubler - Right lower cowl segment				1
-38	0352177-3	*			Lip - Cowl (Eff. serials 7451 & on)				1
	0352177-4	*			Lip - Cowl (Eff. serials 7451 & on)				1
-39	AN507-632R12	*			Screw - (Attach lip) (Eff. serials 7451 & on)				11
	AN365-632				Nut - (Attach lip) (Eff. serials 7451 & on)				11
-40	0352133				Segment Assembly - Left upper cowl				1
-41	0352112-5				Ring Assembly - Left upper cowl				1
	0352114-3				Rub Strip - Cowl support ring				5
	0352114-4				Rub Strip - Cowl support ring				5
	0352114-5				Rub Strip - Cowl support ring				5
	0352112				Ring - Left upper cowl support				1
-42	0352115				Reinforcement - Trailing edge				1
-43	0352117				Channel Assembly - Left cowl lower				1
	0352117-3				Channel - Cowl coupling				1
	2600-048				Nut - (Nutt-Shel Co)				4
	2610-048				Nut - (Nutt-Shel Co)				1
-44	0352135				Cup - Cowl streamline				5
-45	0352119				Doubler - Left cowl segment upper				1
-46	0352127				Doubler - Left cowl segment lower				1
-47	0352176	*			Lip - Cowl (Eff. serials 7451 & on)				1
-48	AN507-632R12	*			Screw - (Attach lip) (Eff. serials 7451 & on)				14
	AN365-632	*			Nut - (Attach lip) (Eff. serials 7451 & on)				14
-49	0352133-1				Segment Assembly - Right upper cowl				1
-50	0352112-6				Ring Assembly - Right upper cowl				1
	0352114-3				Rub Strip - Cowl support ring				5
	0352114-4				Rub Strip - Cowl support ring				5
	0352114-5				Rub Strip - Cowl support ring				5
-51	0352112-1				Ring - Right cowl support				1
-52	0352115				Reinforcement - Trailing edge				1
-53	0352117-1				Channel Assembly - Right cowl lower				1
	0352117-4				Channel - Cowl				1
	2600-048				Nut - (Nutt-Shel Co.)				4
	2610-048				Nut - (Nutt-Shel Co.)				1
-54	0352135				Cup - Cowl streamline				5
-55	0352170				Channel Assembly - Right cowl upper				1
	0352170-3				Channel - Cowl coupling				1
	2600-048				Nut - (Nutt-Shel Co.)				4
	2610-048				Nut - (Nutt-Shel Co.)				1
-56	0352121-3				Diffuser - Upper cowl nose				1
-57	0352121				Diffuser - Upper cowl nose				1
-58	0352119-1				Doubler - Right upper cowl segment				1
-59	0352127-1				Doubler - Right upper cowl segment				1
-60	0352176				Lip - Cowl (Eff. serials 7451 & on)				1
-61	AN507-632R12				Screw - (Attach lip)				14
	AN365-632				Nut - (Attach lip)				14
-62	AN526-428R10				Screw - (Attach segments together)				15
NOTE: Parts marked (*) are part of									
Kit 52-2-577, Serials 7003									
thru 7450.									

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE





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FIGURE 58

CONTINENTAL ENGINE ASSEMBLY

FIGURE AND REF NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0350200	Engine Assembly - Continental W670 (see figure 57 for NHA)						Ref	
		Valve Installation - Carburetor hot & cold air (see figure 59)						1	
		for breakdown)							
		Propeller Governor Installation (see figure 60 for breakdown)						1	
		Baffle Installation - Continental engine (see figure 61 for						1	
		breakdown)							
		Exhaust Stack Installation - Continental engine (see figure 62						1	
		for breakdown)							
58-1	0351000	Mount - Engine						1	
-2	584	Coil - Ignition (Bendix Scintilla #10-16144-1)						1	
-3	21F483	Capacitor - (General Electric)						1	
-4	AN526-832-R8	Screw - (Attach capacitor)						2	
-5	AN365-832	Nut - (Attach capacitor)						2	
-6	0350109	Clamp Assembly - Ignition coil						2	
-7	AN3-10A	Bolt - (Attach clamp)						2	
-8	AN365-1032	Nut - (Attach clamp)						2	
-9	0350200-12	Conduit Assembly - Coil (Jacobs 30070)						1	
-10	0350200-4	Shielded Cable - Coil to distributor (Jacobs 775-S)						1	
-11	0300005-51	Wire - Ignition coil						1	
-12	0300106-63	Tube - Case vent						1	
-13	AN844-8	Elbow - Case vent						1	
-14	AN884-8-12	Hose - Case vent tube						1	
-15	NAS397-D14	Clamp - (Attach hose to tube) (Tinnerman A3122-14-59)						2	
-16	0350113-3	Support - Case vent						1	
-17	NAS434-D8	Clamp - (Tinnerman A2981A-8)						1	
-18	NAS434-D32	Clamp - (Tinnerman A3981A-32)						1	
-19	PK76XZ-8-8	Screw - (Attach clamp)						1	
-20	PK76XZ-10-8	Screw - (Attach clamp)						1	
-21	0350113-4	Support - Case vent						1	
-22	NAS434-D14	Clamp - (Tinnerman A2981A-14)						1	
-23	PK76XZ-10-6	Screw - (Attach clamp)						1	
-24	NAS434-D8	Clamp - (Tinnerman A2980A-8) (Eff. serials 7045 thru 7271)						1	
-25	NAS434-D4	Clamp - (Tinnerman A2981A-8) (Eff. serials 7045 thru 7271)						1	
-26	PK76XZ-8-8	Screw - (Attach clamp) (Eff. serials 7045 thru 7271)						1	
-27	0300106-19	Line - Fuel pump drain (Eff. serials 7045 thru 7271)						1	
-28	NAS434-D8	Clamp - (Tinnerman A2980A-8)						1	
-29	NAS434-D4	Clamp - (Tinnerman A2981A-4)						1	
-30	PK76XZ-8-8	Screw - (Attach clamp)						1	
-31	0350268	Pump - Fuel (Eff. serials 7045 thru 7271)						1	
-32	0350276-1	Hose Assembly - (Strainer to pump or carburetor)						1	
-33	0350200-6	Tube - Fuel pump (Eff. serials 7045 to 7271)						1	
-34	0350138	Bracket - Mixture control						1	
-35	0350108	Arm - Mixture control						1	
-36	AN3-5A	Bolt - (Attach arm)						1	
-37	AN365-1032	Nut - (Attach arm)						1	
-38	0411081-1	Suppressor - Generator (Aerovox 1140)						1	
-39	0350200-8	Stud - (Attach generator)						2	
-40	AN822-2B	Elbow						1	
-41	0350255-1	Hose Assembly - Engine case						1	
-42	AN735-D30	Clamp - (Tinnerman A3052A-20)						1	
-43	NAS434-D7	Clamp - (Tinnerman A2980A-7)						1	
-44	NAS434-D7	Clamp - (Tinnerman A2981A-7)						1	
-45	PK76XZ-8-8	Screw - (Attach clamp)						1	
-46	0350255-1	Hose Assembly - Engine oil pressure						2	
-47	AN8232B	Elbow						2	
-48	AN884-6-80	Hose - Oil tank vent						1	
-49	AN844-6D	Adapter - Oil tank vent						1	
-50	AN912-9	Reducer - Bushing						1	
-51	NAS397-12	Clamp - (Tinnerman A3122-12-59)						4	
-52	NAS434-D7	Clamp - (Attach hose to engine mount)(Tinnerman A2981A-7)						1	
-53	AN735-D30	Clamp - (Attach hose to engine mount)(Tinnerman A3052A-20)						1	
-54	PK76XZ-8-8	Screw - (Attach clamp)						1	
-55	AN742-D14C	Clamp - (Tinnerman A3046-12A)(Attach primer hose)						1	
-56	0350200-3	Stiffener - Oil line						1	
-57	0412007-3	Strap - Bonding						2	
-58	0412007-2	Strap - Bonding						1	
-59	E-80	Starter - (Eclipse Type 397-13)						1	
-60	309-8A	Generator						1	
	0350280	Blast Tube Installation - Generator (Eff. serials 7425 & on)						1	
-61	0350283	Cover - Strap						1	
-62	AN884-16-12	Hose - Cover strap to tube						1	
-63	0300106-50	Tube - Generator blast						1	
-64	NAS397-D22	Clamp - (Tinnerman A3122-22-59)						2	
-65	AN884-12-117	Hose - Oil line						1	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



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FIGURE 58

CONTINENTAL ENGINE ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
58-66	AN842-12D		Elbow					1	
-67	NAS397-D18		Clamp - (Tinnerman A3122-18-59)					2	
-68	AN884-12-73		Hose - Oil line					1	
-69	AN844-12D		Elbow					1	
-70	NAS397-D18		Clamp - (Tinnerman A3122-18-59)					2	
-71	0350110		Bracket Assembly - Throttle & carburetor heat control					1	
-72	AN380-2-2		Pin - Cotter (safety throttle control arm)					1	
-73	0350263-3		Hose Assembly - Carburetor to fuel pump (Eff. serials 7045 thru 7271)					1	
	0350200-7		Tube - Vinylite approx (17" long) (Eff. serials 7045 thru 7271)					1	
-74	0350276-1		Hose Assembly - Carburetor to strainer (Eff. serials 7272 & on)					1	
	0350200-6		Tube - Vinylite (Approx. 20" long) (Eff. serials 7272 & on)					1	
-75	AN823-8D		Elbow					1	
-76	0352255-4		Line - Fuel pressure (Eff. serials 7045 thru 7271)					1	
-77	AN816-2D		Nipple - Fuel line (Eff. serials 7045 thru 7271)					1	
	0350200-5		Tube - Vinylite (Approx. 11" long) (Eff. serials 7045 thru 7271)					1	
-78	0311018-5		Thermocouple - (Lewis TX18)					1	
-79	0350147		Support - Thermocouple					1	
-80	AN3-35A		Bolt - (Attach baffle support)					14	
-81	AN365-1032		Nut - (Attach baffle support)					14	
-82	AN960-10		Washer - (Attach baffle support)					14	
-83	AN364-918		Nut - (Attach baffle support)					14	
-84	AN4-H7		Bolt - (Attach carburetor) (left side only)					2	
-85	0350152		Bracket - (Mount on #1 intake & #7 exhaust cylinder)					1	
-86	AN364-428		Nut - (Attach bracket)					2	
-87	0350156		Clamp					1	
-88	NAS43-3-9		Spacer					2	
-89	AN3-6A		Bolt - (Attach clamp)					2	
-90	AN365-1032		Nut - (Attach clamp)					2	

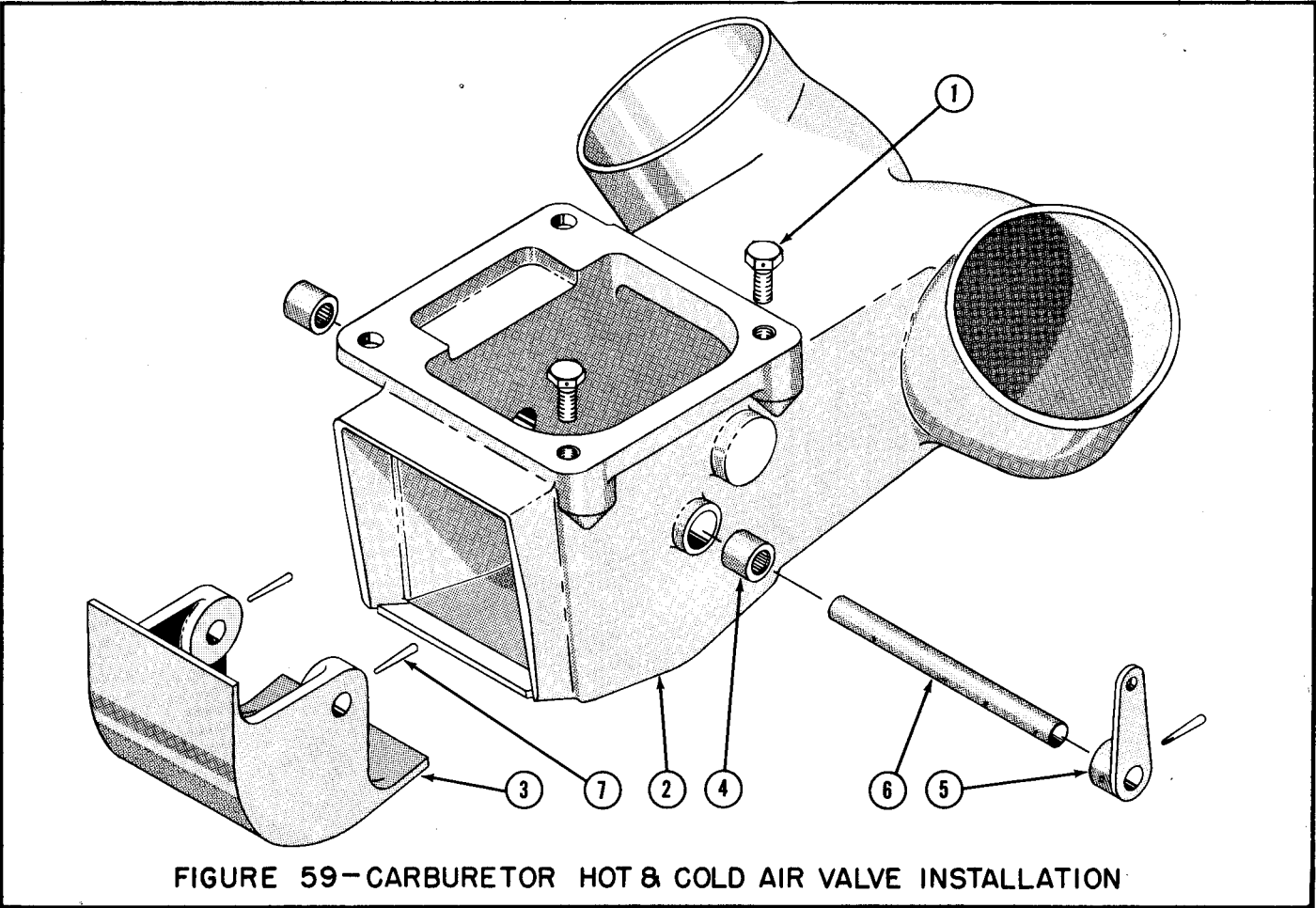


FIGURE 59-CARBURETOR HOT & COLD AIR VALVE INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

D PARTS CATALOG

D AIR VALVE INSTALLATION

PART NAME	UNITS REQUIRED ON MODELS	
	190	195
retor hot & cold air (see figure 58 for NHA)	Ref	
tor hot & cold air valve)	2	
retor hot & cold air	1	
	1	
	1	
n	2	
uretor air valve	1	
air valve	1	
	3	

ILLUSTRATE

FIGURE 59

CARBURETOR HOT & C

FIGURE AND REF. NO.	PART NUMBER						
		1	2	3	4	5	6
		Valve Installation - Carb					
59-1	AN4H-7						Bolt - (Attach carbur
	0350106						Valve Assembly - Carb
-2	0350106-3						Casting - Body
-3	0350107						Valve - Gate
-4	B-55						Bearing - Torrington
-5	0350157						Arm Assembly - Car
-6	0350275						Shaft - Carburetor
-7	AN385-50-6						Pin - Taper

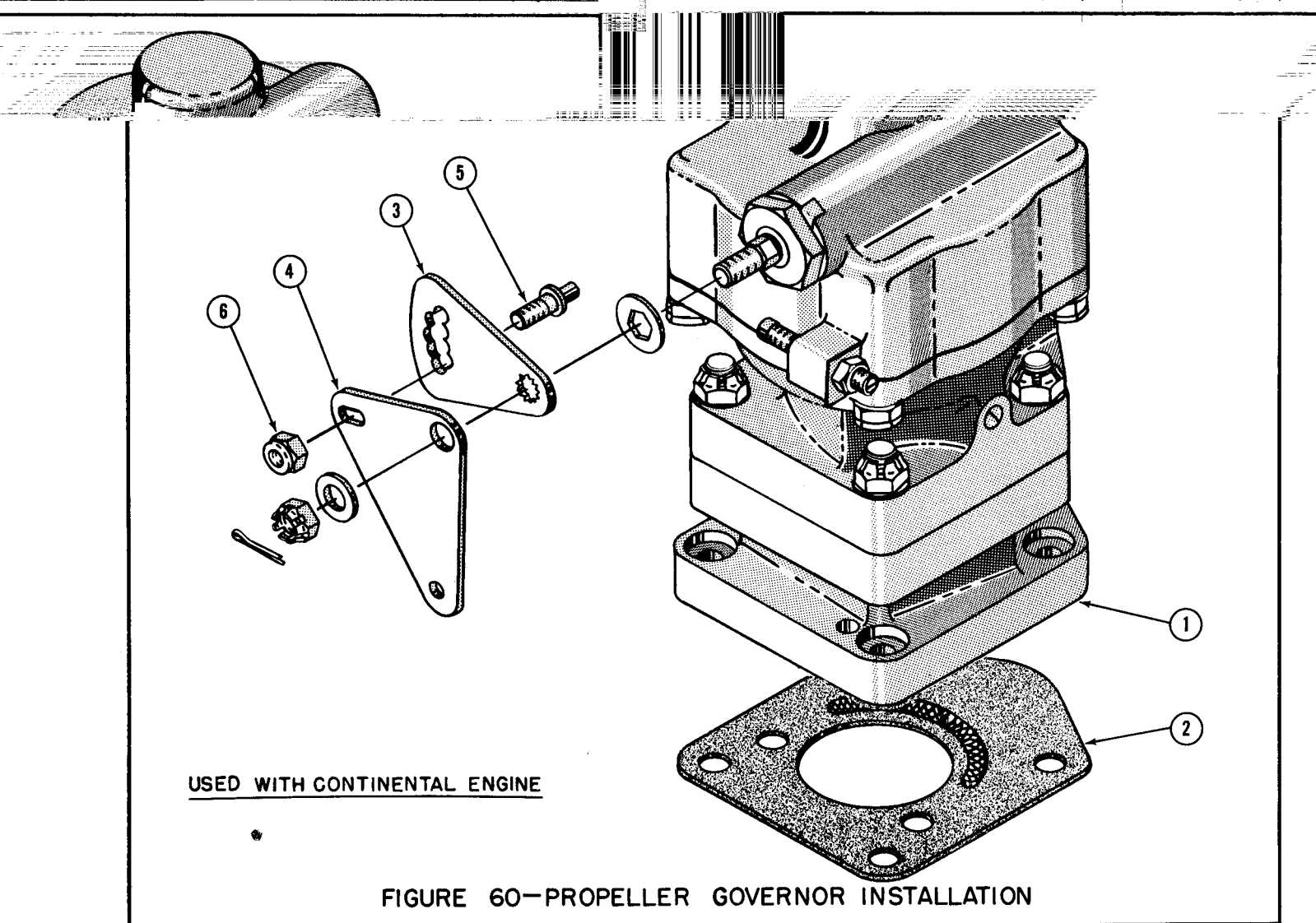


FIGURE 60-PROPELLER GOVERNOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Governor Installation - Propeller (see figure 58 for NHA)						Ref	
60-1	0350001							1	
-2	57354							1	
-3	0350155							1	
-4	0350150							1	
-5	0350151							1	
-6	AN365-1032							1	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

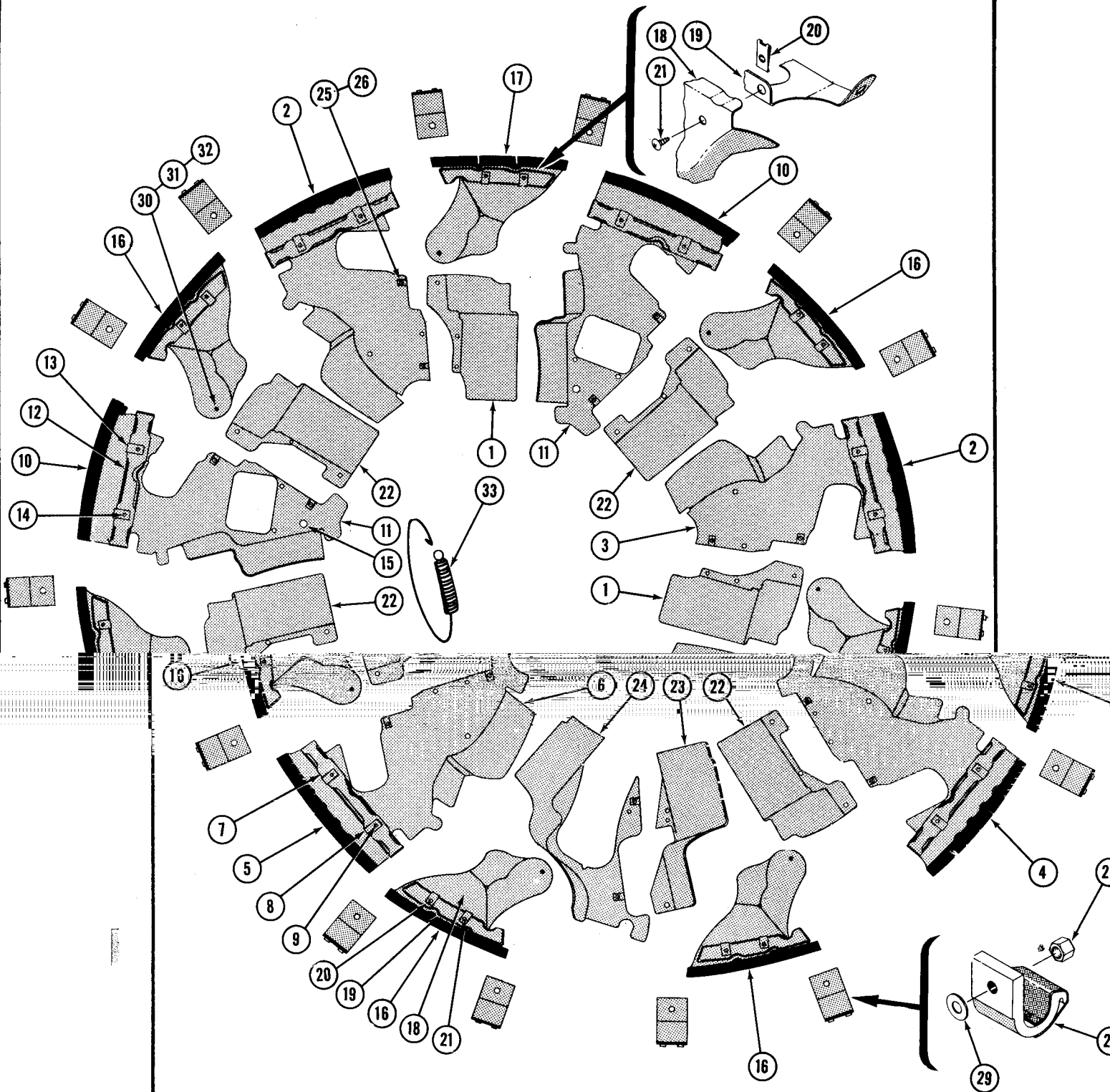
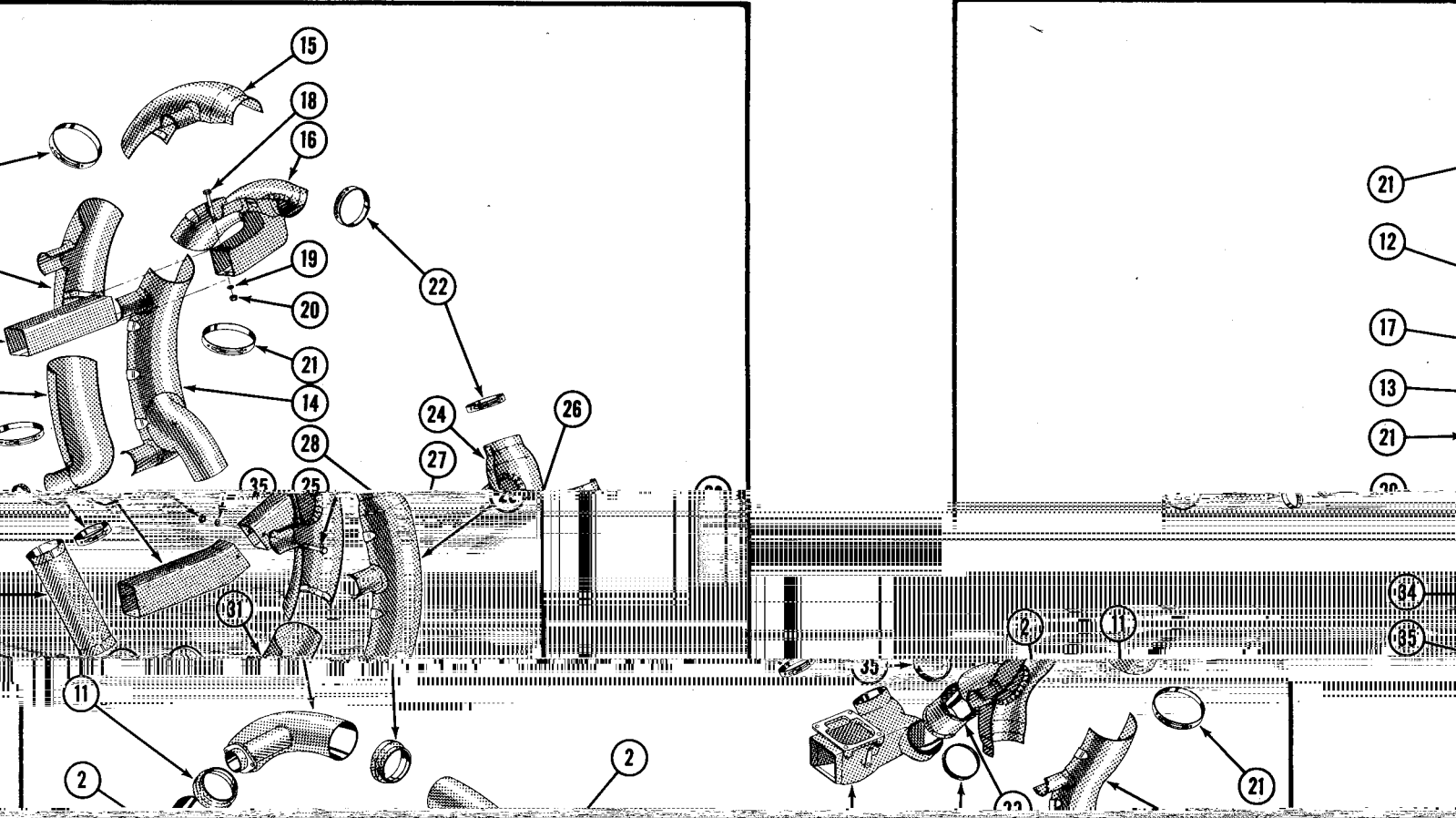


FIGURE 6I-CONTINENTAL ENGINE BAFFLE INSTALLATION

CONTINENTAL ENGINE BAFFLE INST

FIGURE AND REF. NO.	PART NUMBER	PART NAME					
		1	2	3	4	5	6
		Baffle Installation - Continental engine					
61-1	0350264			Baffle	-	Inter cylinder	
-2	0350127-3			Baffle Assembly	-	Inter cylinder upper	
-3	0350115-3			Baffle	-	Inter cylinder upper le	
-4	0350127-1			Baffle Assembly	-	Inter cylinder low	
-5	0350127-4			Baffle Assembly	-	Inter cylinder low	
-6	0350115			Baffle	-	Inter cylinder	
-7	0350119			Bracket	-	Inter cylinder baffle	
-8	NAS395-18-3			Nut	-	(Attach bracket) (Tinnerman	
-9	PK76XZ-8-8			Screw	-	(Attach bracket)	
-10	0350154			Baffle Assembly	-	Inter cylinder	
-11	0350153			Baffle	-	Inter cylinder	
-12	0350119			Bracket	-	Inter cylinder baffl	
-13	NAS395-18-3			Nut	-	(Tinnerman A1787-8Z-3)	
-14	PK76XZ-8-8			Screw	-	(Attach bracket)	
-15	48192			Plug Button	-	Baffle	
-16	0350146			Baffle Assembly	-	Head	
-17	0350146-3			Baffle Assembly	-	Head	
-18	0350114			Baffle	-	Head	
-19	0350137			Bracket	-	Head baffle	
-20	NAS395-18-3			Nut	-	(Tinnerman A1787-8Z-3)	
-21	PK76XZ-8-8			Screw	-	(Attach bracket)	
-22	0350118			Baffle Assembly	-	Inter cylinder 1	
-23	0350139			Baffle	-	Oil sump right	
-24	0350140			Baffle Assembly	-	Oil sump left	
-25	NAS395-18-3			Nut	-	(Tinnerman A1787-8Z-3)	
-26	PK76XZ-8-8			Screw	-	(Attach baffle)	
-27	AN365-524C			Nut	-	(Attach cowl lug)	
-28	0352131			Lug	-	Cowl	
-29	0350311			Washer	-	Cowl lug	
-30	AN365-10RE			Screw	-	(Attach ban	

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 63

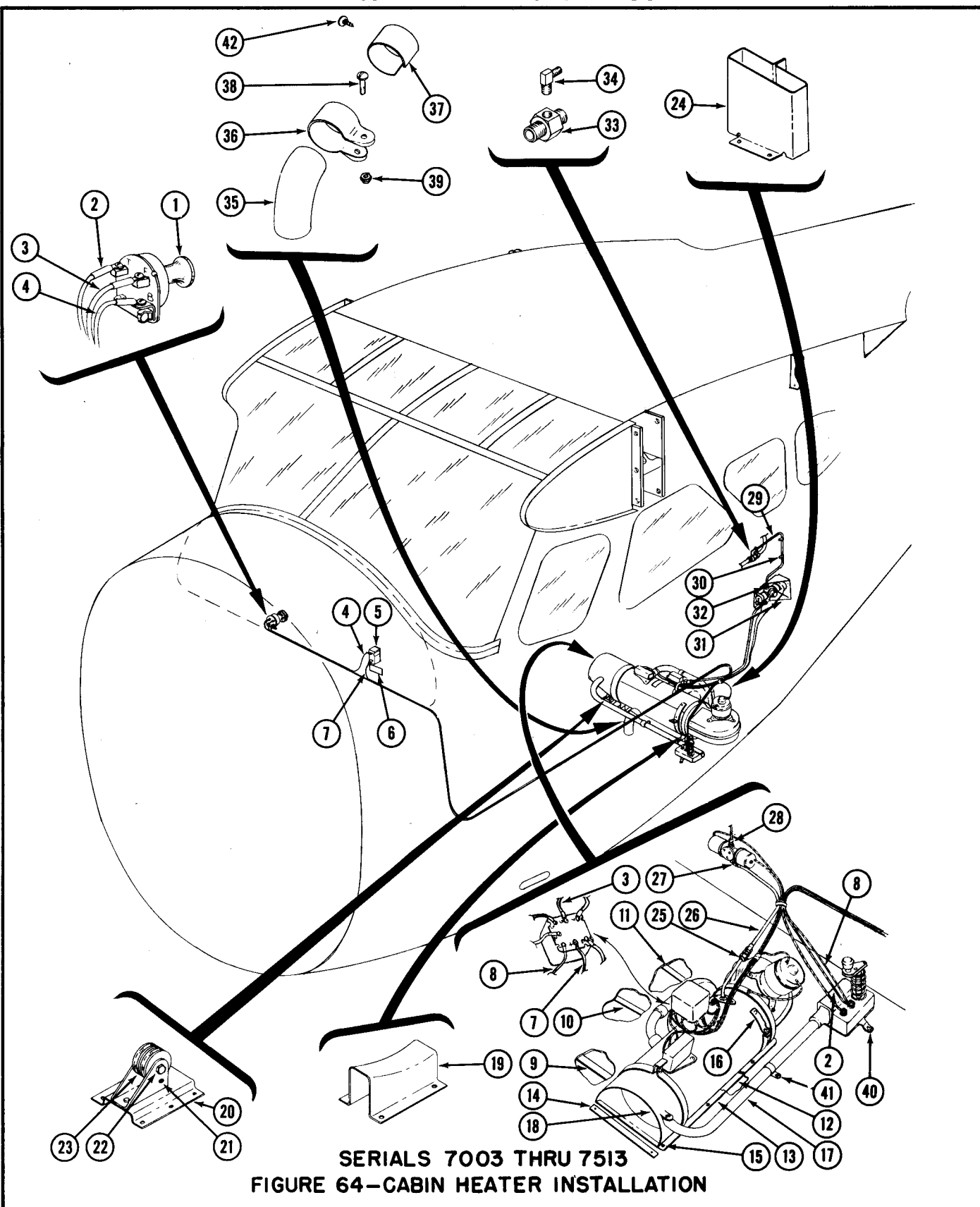
CONTINENTAL ENGINE COWL INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Cowl Installation - Continental engine	1	
	0352150	Cowl Assembly - Continental engine	1	
63-1	0352151	Segment Assembly - Left upper cowl	1	
-2	0352173	Channel Assembly - Left upper cowl	1	
	2610-048	Nut - (Nutt-Shel Co)	1	
	2600-048	Nut - (Nutt-Shel Co)	4	
-3	0352158	Stiffener - Left upper cowl	1	
-4	0352159	Stiffener - Left upper cowl	1	
-5	0352160	Reinforcement - Left upper cowl	1	
-6	0352161	Ring Assembly - Left upper cowl	1	
-7	0352121-3	Diffuser - Left upper cowl	1	
-8	0352174	Stop - Left upper cowl	1	
-9	0352162	Cup - Cowl (Eff. serials 7003 thru 7707)	5	
	0352178-7	Cup - Cowl (Eff. serials 7708 & on)	4	
	0352178-8	Cup - Cowl (Eff. serials 7708 & on)	1	
-10	0352146	Angle - Stiffener (Eff. serials 7595 & on)	2	
	0352147	Angle - Stiffener (Eff. serials 7595 & on)	1	
-11	0352151-1	Segment Assembly - Right upper cowl	1	
-12	0352156	Channel Assembly - Right upper cowl	1	
	2610-048	Nut - (Nutt-Shel Co)	1	
	2600-048	Nut - (Nutt-Shel Co)	4	
-13	0352173-1	Channel Assembly - Right upper cowl	1	
-14	0352160	Reinforcement - Right upper cowl	1	
-15	0352161	Ring Assembly - Right upper cowl	1	
-16	0352158-1	Doubler - Right upper cowl	1	
-17	0352159-1	Doubler - Right upper cowl	1	
-18	0352174	Stop - Right upper cowl	1	
-19	0352162	Cup - Cowl (Eff. serials 7003 thru 7707)	5	
	0352178-13	Cup - Cowl (Eff. serials 7708 & on)	4	
	0352178-8	Cup - Cowl (Eff. serials 7708 & on)	1	
-20	0352146	Angle - Stiffener (Eff. serials 7595 & on)	2	
	0352147	Angle - Stiffener (Eff. serials 7595 & on)	1	
-21	0352152	Segment Assembly - Lower cowl	1	
-22	0352145	Filter Assembly - Carburetor air intake	1	
	0352142	Seal - Rubber	1	
-23	0352152-20	Segment Assembly - Lower cowl	1	
-24	0352134-4	Reinforcement - Cowl nose lower	1	
-25	0352164-3	Reinforcement - Exhaust stack	1	
-26	0352154	Seal - Carburetor air intake	1	
-27	0352165	Reinforcement - Cowl trailing edge	1	
-28	0352155	Duct Assembly - Cowl	1	
-29	0352155-2	Seal - Cowl duct	1	
	AN3-5A	Bolt - (Attach duct)	2	
	AN960-10L	Washer - (Attach duct)	2	
-30	0352163	Ring Assembly - Left cowl mount	1	
-31	0352163-1	Ring Assembly - Right cowl mount	1	
-32	0352178 13	Cup - Cowl	2	
-33	0352152-5	Doubler - Left lower cowl	1	
	0352152-6	Doubler - Right lower cowl	1	
-34	0352174	Stop	1	
-35	0352159-2	Doubler - Left lower cowl	1	
	0352159-3	Doubler - Right lower cowl	1	
-36	AN526-428R10	Screw - (Assemble segments)	15	
-37	0352126-2	Cowl Assembly - Inner motor (see figure 56 for parts)	1	
-38	0352126-3	Cowl Assembly - Inner motor (see figure 56 for parts)	1	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG





ILLUSTRATED PARTS CATALOG

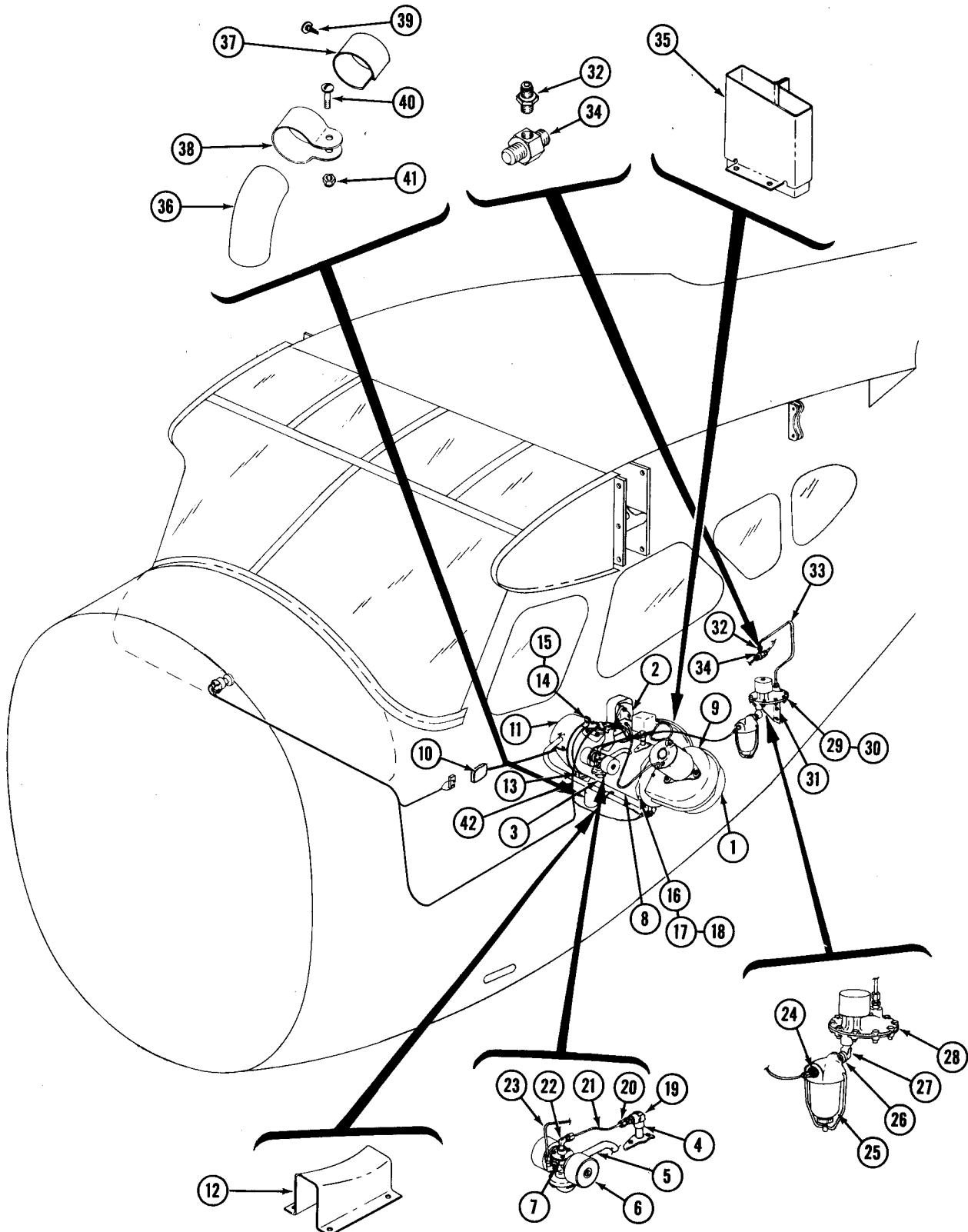
FIGURE 64

CABIN HEATER INSTALLATION (SERIALS 7003 THRU 7513)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Heater Installation - Stewart-Warner (0311752 Ref)	1	1
	0311769	Heater Kit - Stewart-Warner	1	1
64-1	0311768	Knob - Heater switch	1	1
	0311811	Washer	1	1
-2	0300005-101	Wire - Control switch to thermostat	1	1
-3	0300005-104	Wire - Control switch to junction box	1	1
-4	0300005-116	Wire - Control switch to circuit breaker	1	1
-5	P.S.M. -15 AMP	Circuit Breaker - 15 AMP	1	1
-6	0311579-4	Decal - Circuit breaker	1	1
-7	0300005-103	Wire - Circuit breaker to junction box	1	1
-8	0300005-2	Wire - Thermostat to junction box	1	1
-9	0311140-23	Stiffener - Floorboard cutout aft right	1	1
-10	0311140-25	Stiffener - Floorboard cutout aft center	1	1
-11	0311140-24	Stiffener - Floorboard cutout aft left	1	1
-12	0311765	Doubler - Floorboard cutout	1	1
-13	0311772-4	Retainer Strip - Carpet	1	1
	0311772-2	Retainer Strip - Carpet	1	1
-14	0311772-3	Retainer Strip - Carpet	1	1
-15	PK76XZ-6-4	Screw - (Attach carpet retainer strip)	7	7
	NAS445-4	Nutplate - (Tinnerman A6194-6Z-3)	2	2
-16	0311752-11	Strap Assembly - Heater mounting left	1	1
	AN526-1032-8	Screw	1	1
	AN365-1032	Nut	1	1
-17	0311752-7	Duct - Heater to thermostat	1	1
-18	0311752-12	Deflector Assembly - Air outlet	1	1
-19	0311752-9	Bracket - Heater support left	1	1
	0311752-8	Bracket - Heater support right	1	1
-20	0311752-15	Bracket Assembly - Tab pulley	1	1
-21	AN380-3-4	Pin - Cotter	1	1
-22	AN3-10A	Bolt	1	1
	0411491	Bushing - Pulley	1	1
	AN960-416L	Washer	1	1
	AN365-1032	Nut	1	1
-23	NAS383-1	Pulley - Tab cable	2	2
-24	0311752-20	Duct - Air inlet	1	1
-25	AN816-4D	Fitting	1	1
	AN910-1	Coupling	1	1
-26	0311752-18	Line - Fuel	1	1
-27	AN822-4	Elbow	1	1
-28	AN816-2D	Fitting	1	1
-29	0311752-4	Line - Fuel	1	1
-30	755-2-2-6	Clip - (Adel)	2	2
	PK76XZ-8-6	Screw - (Attach clips)	2	2
-31	0311752-2	Bracket - Valve mounting	1	1
	AN526-1032-8	Bolt - (Attach bracket)	4	4
	AN365-1032	Nut - (Attach bracket)	4	4
-32	0311752-6	Clamp - Valve mounting	2	2
	AN526-1032-6	Bolt - (Attach clamp)	4	4
	AN365-1032	Nut - (Attach clamp)	4	4
-33	0311752-3	Fitting - Fuel line	1	1
-34	AN822-2D	Elbow	1	1
-35	0311752-5	Tube - Heater exhaust	1	1
-36	AN731-D13	Clamp	1	1
-37	0311752-10	Tape - (John's Manville #1091)	1	1
-38	AN526-1032-10	Screw	1	1
-39	AN365-1032	Nut	1	1
-40	PK76XZ-4-6	Screw - (Attach thermostat)	1	1
-41	AN742-14	Clamp - (Tinnerman A2980-14)	1	1
	PK76XZ-6-4	Screw	1	1
-42	PK-A177XZ-6-4	Screw	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



SERIALS 7514 & ON
FIGURE 65—CABIN HEATER INSTALLATION

CABIN HEATER INSTALLATION (SERIALS 7514

FIGURE AND REF. NO.	PART NUMBER	PART NAME					
		1	2	3	4	5	6
	0311752-1	Heater	Installation	(Eff. serials 7514 & on)			
65-1	0311752-28	Heater	Assembly				
-2	0311752-31		Guard Assembly				
-3	0511231-17		Heater Assembly				
-4	0511231-4		Standpipe				
-5	0511231-5		Pipe - Drip				
-6	0511231-16		Valve Assembly - Fuel control				
-7	0511231-3		Plate - Valve adapter				
-8	979-B-1		Heater - Stewart Warner				
-9	0311779-4	Blower	Assembly - Heater (Stewart Warner 4				
-10	0311779-24	Thermostat - (Stewart Warner)	933-A)				
	PK76XZ-6-4	Screw - (Attach thermostat)					
	NAS446-2	Nut - (Attach thermostat)					
-11	0311752-12	Deflector Assembly	- Air outlet				
-12	0311752-9	Bracket - Heater support	left				
-13	0311752-8	Bracket - Heater support	right (Stewart Warner)				
-14	0311779-22	Belting - (Stewart Warner Corp)	(Stewart Warner)				
-15	0311779-23	Strap Assembly					
-16	0511752-1r	Strap Assembly					
-17	AN526-1G32-8	Screw - (Att					

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

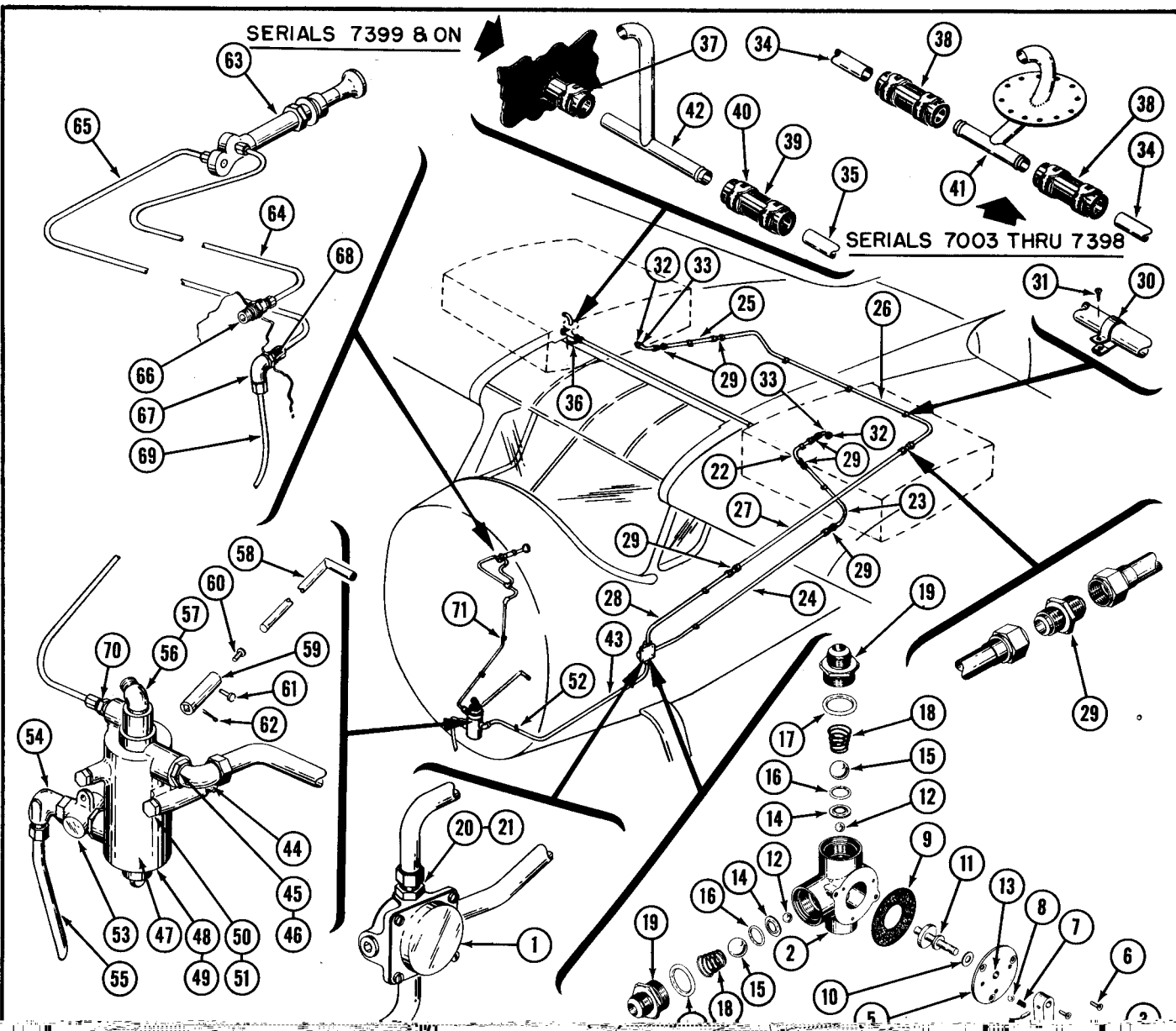


FIGURE 66 FUEL SYSTEM

SERIAL NUMBER AND COLOR IF APPLICABLE

FIGURE 67

OIL SYSTEM INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

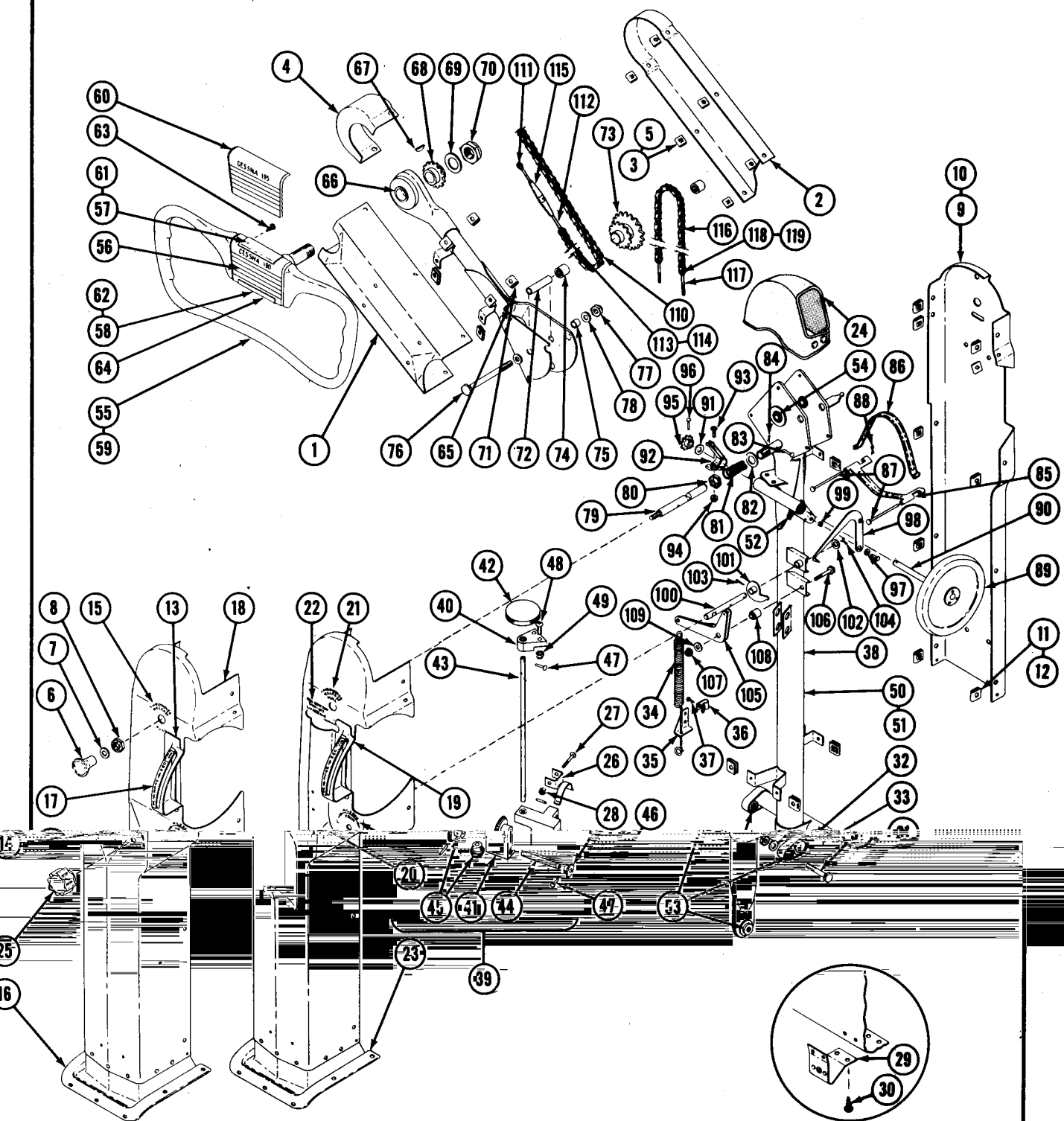


FIGURE 68—CONTROL COLUMN ASSEMBLY

-51	0310350			Tube Assembly - Control (Serials 7003 thru 7393)	1	1
-52	B-47X			Bearing - Torrington	2	2
-53	AR-4-1			Bearing - Torrington	3	3
-54	K-5A			Bearing - Fafnir	2	2
-55	0310340			Wheel - Control (190)	1	
-56	0310341-3			Overlay - Control wheel trim	1	
-57	0310333			Channel - (Attach overlay)	1	
-58	0310334			Channel - (Attach overlay)	1	
-59	0310340-3			Wheel - Control (195) (serials 7003 thru 7393 except 7385)		1
	0310456			Wheel - Control (195) (serials 16084 & on)		1
	0310456-1			Overlay - Control wheel trim (serials 16084 & on)		1
	0713039			Name Plate - (Overlay) (Eff. serials 16084 & on)		1
-60	0310341-4			Overlay - Control wheel trim		1
-61	0310333			Channel - (Attach overlay)		1
-62	0310334			Channel - (Attach overlay)		1
-63	PK76X2-4-4			Screw - (Attach channel)	2	2
-64	PK76X2-4-5			Screw - (Attach channel)	2	2
-65	0310356			Arm Assembly - Control	1	1
-66	K-12A			Bearing - Fafnir	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 68

CONTROL COLUMN INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
304		Key - Arm retaining	1	1
54		Sprocket - Control arm	1	1
59-5		Washer - Control arm	1	1
9-5		Washer - Control arm	1	1
1216		Nut - (Attach control wheel to arm)	1	1
14-3		Nut - (Tinnerman A1274-8Z-3)	10	10
7		Bushing - Control hub sprocket	1	1
2		Sprocket Assembly - Control column	1	1
		Bearing - Torrington	2	2
5-16		Spacer - Control column	1	1
A		Bolt - (Attach control arm)	1	1
524		Nut - (Attach control arm)	1	1
516L		Washer - (Attach control arm)	2	2
2		Pin - Lock throwover control	1	1
820		Nut	1	1
3		Spring	1	1
816L		Washer	1	1
29		Pin - Clevis	1	1
0310379		Guard - Control column sprocket lower	1	1
0310380		Guard - Control column sprocket upper	1	1
AN392-57		Pin - Clevis	2	2
AN380-2-2		Pin - Cotter	2	2
0310412		Wheel Assembly - Tab control	1	1
0310412-2		Shaft Assembly - Tab control	1	1
AN960-416L		Washer - Tab control wheel	1	1
0310126		Guard - Tab control chain	1	1
AN526-1032R7		Screw - (Attach guard)	1	1
AN365-1032		Nut - (Attach guard)	1	1
0432134-1		Sprocket - Tab control	1	1
AN420-3-10P		Rivet - Sprocket retaining	1	1
AN960-10L		Washer - Tab position arm	1	1
0310124		Arm - Tab position indicator	1	1
0310137		Spacer - Tab position	1	1
0310345		Shaft - Aileron bungee	1	1
0310344		Cam - Aileron bungee	1	1
AN960-416L		Washer	1	1
1/16 x 3/8		Groove pin - (Type 3)	1	1
AN380-2-2		Pin - Cotter	1	1
0310343		Bellcrank - Aileron trim	1	1
AN3-7A		Bolt - (Attach bellcrank)	1	1
AN365-1032		Nut - (Attach bellcrank)	1	1
0310346		Spacer - Aileron trim bellcrank	1	1
AN960-10L		Washer	1	1
0310150-3		Chain Assembly - Control column to wheel	1	1
0310153-1		Chain - Control column to wheel	1	1
NAS288-35LH		Terminal - Turnbuckle	1	1
NAS288-35RH		Terminal - Turnbuckle	1	1
AN392-13		Pin - Clevis	2	2
AN380-2-2		Pin - Cotter	2	2
AN155-32S		Barrel - Turnbuckle	1	1
0310151		Chain Assembly - Control column (aileron)	1	1
0310149-1		Chain - Control column	1	1
NAS288-35RH		Terminal - Turnbuckle	2	2
AN392-13		Pin - Clevis	2	2
AN380-2-1		Pin - Cotter	2	2

NOTE: Parts marked (*) are part of kit
52-3-578 shown on figure 97.

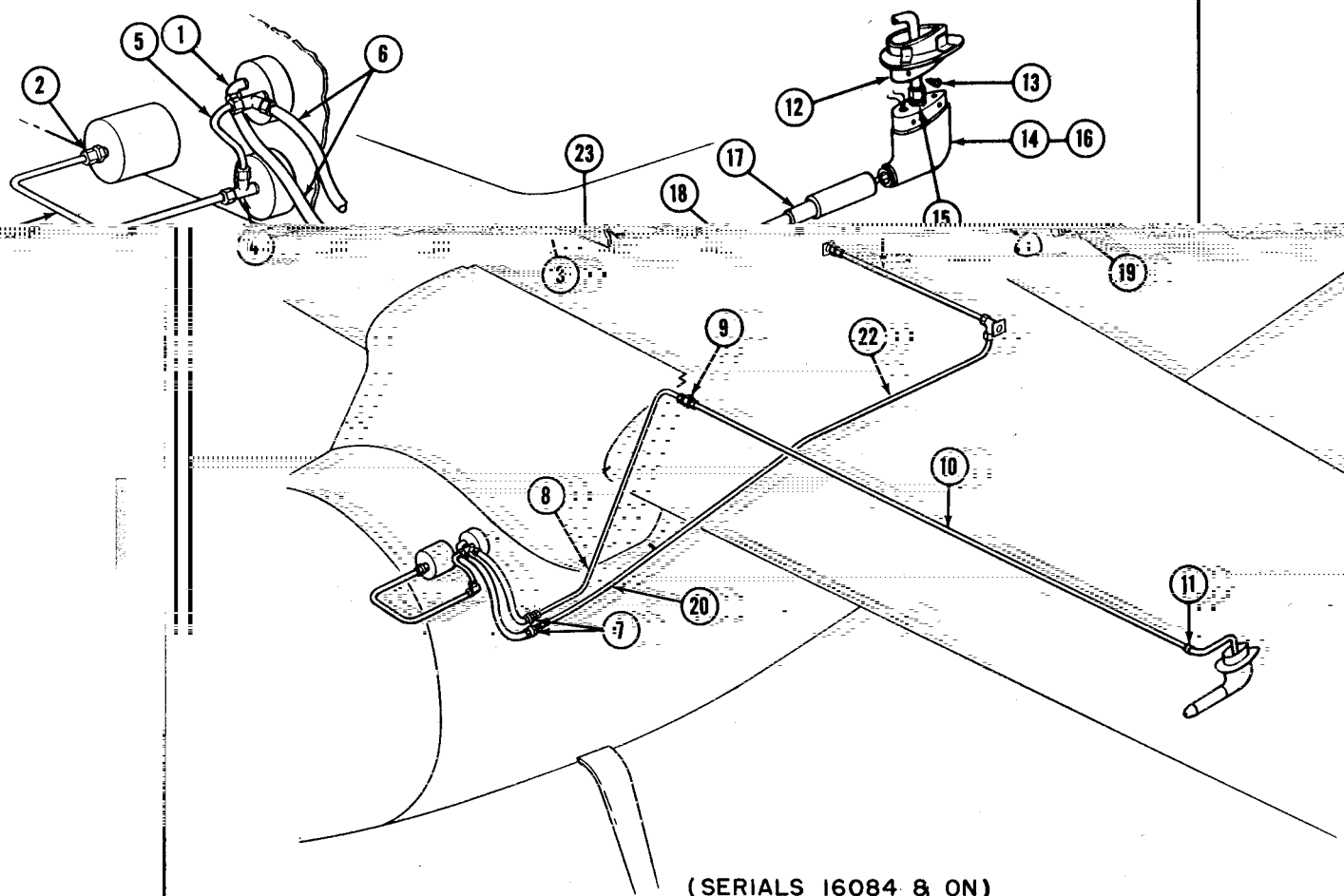
SERIAL NUMBER AND COLOR IF APPLICABLE

ORDER BY PART NUMBER AND NAME

-16	PK76XZ-8-8	Screw - (Attach clamp)	2	2
-17	0300106-28	Line - Pitot mast	2	2
-18	0322718	Mast - Pitot	1	1
-19	518B-01	Pitot Head - Kollsman	1	1
-20	AN520-6R4	Screw - (Attach pitot head)	4	4
-21	AN4-15	Bolt - (Attach mast)	1	1
-22	0411875-9	Channel - Rubber	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



(SERIALS 16084 & ON)

FIGURE 69A—PITOT SYSTEM

UNITS REQUIRED
ON MODELS

190 195

FIGURE
AND
REF.
NO.

PART NUMBER

PART NAME

1 2 3 4 5 6

System Installation Pitot (Cessna 03001-2)							
AN823-4D	Elbow - Airspeed indicator					1	69A-1
AN816-4D	Nipple - Altimeter					2	-2
AN826-4D	Tee					3	-3
0300106-23	Tube - Altimeter to vertical speed					4	-4
0300106-22	Tube - Airspeed to hose					5	-5
AN6260-4-20	Hose Assembly - Gauge to bulkhead fitting					6	-6
AN815-4D	Union - Bulkhead					7	-7
0300106-71	Line - Pressure bulkhead to wing root					8	-8
AN815-4D	Union - Wing root					9	-9
0300106-156	Tube - Wing root to pitot mast					10	-10
AN931-4S12	Grommet - Wing root					11	-11
NAS434-D4	Clamp - (Tinnerman A2981A-4)					12	
072110-1	Connector Assembly - Pitot tube					13	
AN507-640R4	Screw - (Attach pitot tube)					14	
072110-1	Connector Assembly - Pitot tube					15	
AN816-4-40	Nipple					16	
072110-1	Connector Assembly - Pitot tube					17	
072110-1	Connector Assembly - Pitot tube					18	
072110-1	Connector Assembly - Pitot tube					19	
072110-1	Connector Assembly - Pitot tube					20	
072110-1	Connector Assembly - Pitot tube					21	
072110-1	Connector Assembly - Pitot tube					22	
072110-1	Connector Assembly - Pitot tube					23	

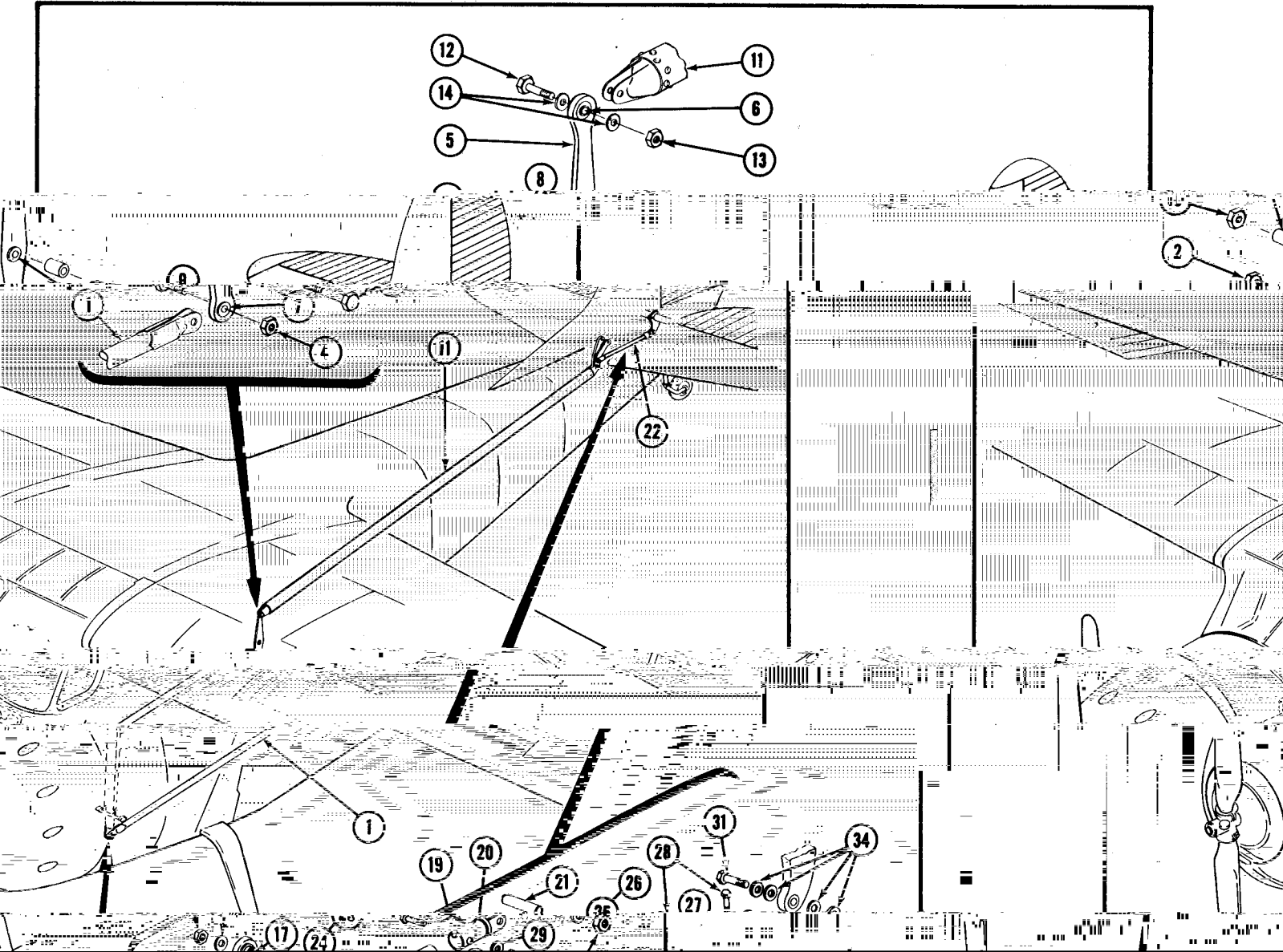


FIGURE 71

ELEVATOR TAB CONTROL SYSTEM INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

FIGURE 72—RUDDER CONTROL SYSTEM

FIGURE 72—RUDDER CONTROL SYSTEM

ILLUSTRATED PARTS CATALOG

FIGURE 72

RUDDER CONTROL SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		System Installation - Rudder control (0310103 Ref)	1	1
72-1	0310196-3	Spring - Rudder return	1	1
-2	0310196-4	Spring - Rudder return	1	1
-3	0411600	Link - Rudder cable attachment	2	2
-4	AN23-10	Bolt - Clevis (attach link to bar)	2	2
-5	AN310-3	Nut - (Attach link to bar)	2	2
-6	AN380-2-2	Pin - Cotter	2	2
-7	AN23-11	Bolt - Clevis (attach link to cable)	2	2
-8	AN310-3	Nut - (Attach link to cable)	2	2
-9	AN380-2-2	Pin - Cotter	2	2
-10	AN161-22BS	Fork - Turnbuckle	2	2
-11	AN155-32L	Barrel - Turnbuckle (right cable)	1	1
-12	AN155-32S	Barrel - Turnbuckle (left cable)	1	1
-13	0310207-1	Cable - Rudder	2	2
-14	AN210-4A	Pulley - Rudder cable (Eff. serials 7587 & on)	2	2
-15	NAS383-3	Pulley - Rudder cable (Eff. serials 7003 thru 7586)	2	2
-16	0411421-2	Guard - Pulley (Eff. serials 7587 & on)	2	2
-17	0411421-6	Guard - Pulley (Eff. serials 7003 thru 7586)	2	2
-18	0411489	Bushing - Pulley (Eff. serials 7587 & on)	2	2
-19	AN4-10A	Bolt - (Attach pulley)	2	2
-20	AN365-428	Nut - (Attach pulley)	2	2
-21	NAS383-3	Pulley - Rudder control (Sta. 65,187)	2	2
-22	0411489	Bushing - Rudder pulley (see figure 74)	2	2
-23	0411421-8	Guard - Pulley (see figure 74)	2	2
-24	AN4-14A	Bolt - (Attach pulleys) (see figure 74)	2	2
-25	AN365-428	Nut - (Attach pulleys) (see figure 74)	2	2
-26	0412006	Fairlead - Cable guide (Sta. 102,00)	2	2
	0410108-2	Clip	2	2
-27	AN23-11	Bolt - Clevis (attach cable at bellcrank)	2	2
-28	AN310-3	Nut - (Attach bolt at bellcrank)	2	2
-29	AN380-2-2	Pin - Cotter	2	2
-30	0310218	Link - Cable to bellcrank	2	2
-31	0310219	Link - Cable to bellcrank	2	2
-32	0310110	Bellcrank Assembly - Rudder control (see figure 23)	Ref	Ref
-33	0310220	Bushing - Bellcrank	2	2
-34	AR4-1	Bearing - Torrington	2	2
-35	KS4	Bearing - Fafnir	1	1
-36	AN3-7A	Bolt - (Attach link)	2	2
-37	AN365-1032	Nut - (Attach link)	2	2
-38	0310103-2	Clip - Spring attachment	2	2
-39	0310336	Spring - Rudder return	2	2
-40	AN161-16LS	Fork - Rudder return spring	2	2
-41	AN3-5A	Bolt - (Attach fork to spring)	2	2
-42	AN365-1032	Nut - (Attach fork to spring)	2	2
-43	AN155-16S	Barrel - Turnbuckle	2	2
-44	AN165-16RS	Eye - Turnbuckle	2	2
-45	AN3-6A	Bolt - (Attach eye to link)	2	2
-46	AN365-1032	Nut - (Attach eye to link)	2	2
-47	0310410	Link - Rudder return	2	2
-48	AN3-4A	Bolt - (Attach link)	2	2
-49	AN365-1032	Nut - (Attach link)	2	2
-50	0310155	Link Assembly - Rudder control	1	1
-51	AN4-10A	Bolt - (Attach link to bellcrank)	1	1
-52	AN365-428	Nut - (Attach link to bellcrank)	1	1
-53	AN4-10A	Bolt - (Attach link to pylon)	1	1
-54	AN365-428	Nut - (Attach link to pylon)	1	1
-55	0310223	Spring Assembly - Tailwheel steering	2	2
-56	AN24-15	Bolt - Clevis (attach spring to bellcrank)	2	2
-57	AN320-4	Nut - (Attach spring to bellcrank)	2	2
-58	AN380-2-3	Pin - Cotter	2	2
-59	0310207-4	Cable Assembly - Tailwheel steering	2	2
-60	AN3-6A	Bolt - (Attach cable to spring)	2	2
-61	AN365-1032	Nut - (Attach cable to spring)	2	2
-62	AN23-13	Bolt - Clevis (attach cable at shock strut)	2	2
-63	AN310-3	Nut - (Attach cable at shock strut)	2	2
-64	AN380-2-2	Pin - Cotter	2	2
-65	0310207-12	Cable Assembly - Tailwheel steering release	2	2
-66	AN23-10	Bolt - Clevis (attach cable)	2	2
-67	AN320-3	Nut - (Attach cable)	2	2
-68	AN380-2-3	Pin - Cotter	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

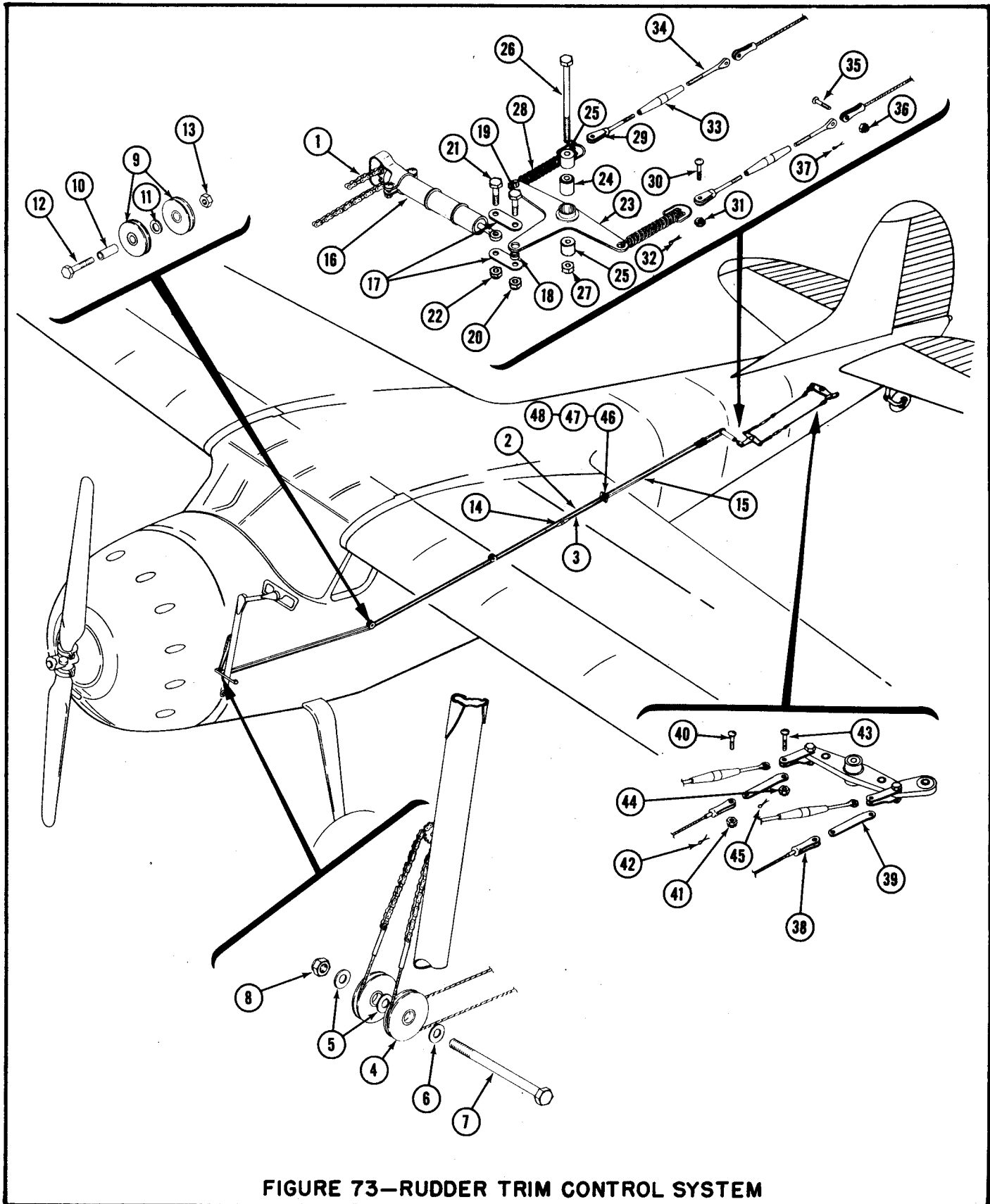


FIGURE 73—RUDDER TRIM CONTROL SYSTEM

ILLUSTRATED PARTS CATALOG

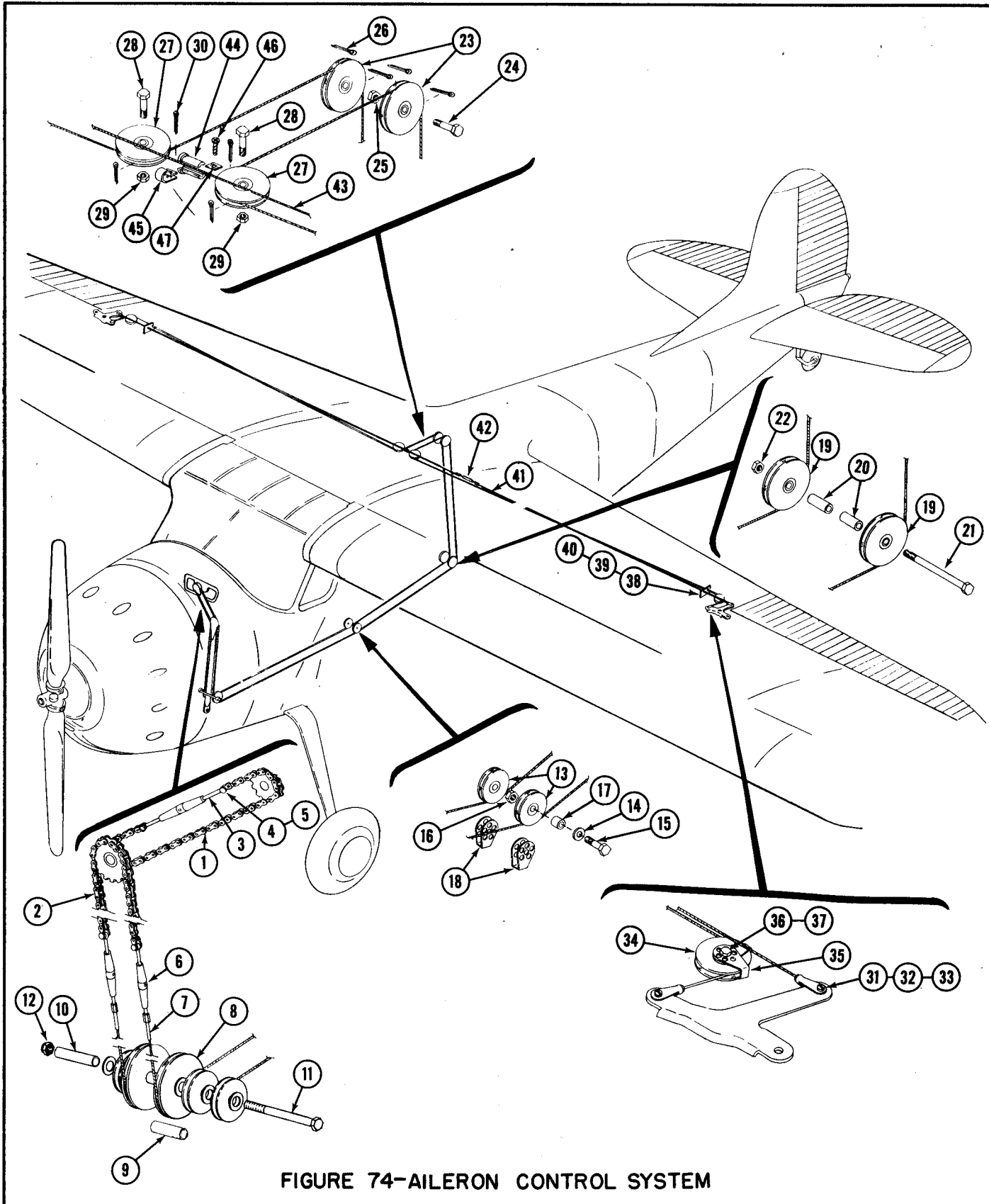
FIGURE 73

RUDDER TRIM CONTROL SYSTEM INST. (EFF. SERIALS 7394 & ON)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Control System Installation - Rudder trim (0310103 Ref)	1	1
73-1	0310437	Chain - Rudder trim	2	2
-2	0310207-50	Cable Assembly - Rudder trim	1	1
-3	0310207-52	Cable Assembly - Rudder trim	1	1
-4	0310227	Pulley - Rudder trim	2	2
-5	AN960-816	Washer - (Between pulleys)	2	2
-6	AN960-816L	Washer - (Between pulleys)	2	2
-7	AN6-44A	Bolt - (Attach pulleys)(see figure 74)	Ref	Ref
-8	AN364-624	Nut - (Attach pulleys)(see figure 74)	Ref	Ref
-9	NAS383-1	Pulley - Rudder trim	2	2
-10	0411491	Bushing - Pulley	1	1
-11	AN960-416L	Washer	1	1
-12	AN3-10A	Bolt - (Attach pulleys)	1	1
-13	AN365-1032	Nut - (Attach pulleys)	1	1
-14	AN155-8S	Barrel - Turnbuckle	1	1
-15	0310207-51	Cable Assembly - Rudder trim aft	1	1
-16	0310293-2	Actuator - Rudder trim control	1	1
-17	0310420-2	Link - Rudder trim bellcrank	2	2
-18	0334124	Bushing - Bellcrank	1	1
-19	AN4-6A	Bolt - (Attach link to bellcrank)	1	1
-20	AN365-428	Nut - (Attach link to bellcrank)	1	1
-21	AN3-6A	Bolt - (Attach link to actuator)	1	1
-22	AN365-1032	Nut - (Attach link to actuator)	1	1
-23	0310417	Bellcrank - Rudder trim	1	1
-24	AR-4-1	Bearing - Torrington	1	1
-25	0310419	Spacer - Rudder trim bellcrank	2	2
-26	AN4-17A	Bolt - (Attach bellcrank)	1	1
-27	AN365-428	Nut - (Attach bellcrank)	1	1
-28	0310336	Spring - Rudder trim control	2	2
-29	AN161-16LS	Fork - Turnbuckle	2	2
-30	AN23-11	Bolt - Clevis (Attach fork to spring)	2	2
-31	AN310-3	Nut - (Attach fork to spring)	2	2
-32	AN380-2-2	Pin - Cotter	2	2
-33	AN155-16S	Barrel - Turnbuckle	2	2
-34	AN165-16RS	Eye - Turnbuckle	2	2
-35	AN23-9	Bolt - (Attach eye to cable)	2	2
-36	AN310-3	Nut - (Attach eye to cable)	2	2
-37	AN380-2-2	Pin - Cotter	2	2
-38	0310207-53	Cable - Rudder trim aft	2	2
-39	0310421	Link - Cable to bellcrank	2	2
-40	AN23-9	Bolt - Clevis (Attach cable to link)	2	2
-41	AN310-3	Nut - (Attach cable to link)	2	2
-42	AN380-2-2	Pin - Cotter	2	2
-43	AN23-11	Bolt - Clevis (attach link to bellcrank)(see figure 72)	Ref	Ref
-44	AN310-3	Nut - (Attach link to bellcrank)(see figure 72)	Ref	Ref
-45	AN380-2-2	Pin - Cotter (see figure 72)	Ref	Ref
-46	0310192	Fairlead - Rudder trim	2	2
-47	AN526-832R9	Screw - (Attach fairlead)	2	2
-48	AN365-832	Nut - (Attach fairlead)	2	2
		NOTE:		
		To add rudder trim to airplanes serials		
		7003 thru 7393 see figure 97 kit # 52-3-578.		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



	1	2	3	4	5	6	190	195	REF. NO.
	System Installation - Aileron control (0310103 Ref)						1	1	
0310150-3	Chain Assembly - Aileron control (see figure 68)						Ref	Ref	74-1
0310151	Chain Assembly - Aileron control (see figure 68)						Ref	Ref	-2
NAS288-35RH	Terminal - Turnbuckle (see figure 68)						Ref	Ref	-3
AN392-13	Pin - Clevis (see figure 68)						Ref	Ref	-4
AN380-2-1	Pin - Cotter (see figure 68)						Ref	Ref	-5
AN155-32L	Barrel - Turnbuckle						2	2	-6
0310207-2	Cable Assembly - Aileron						2	2	-7
0310289	Pulley - Aileron						2	2	-8
0310228	Spacer - (Between pulleys)						1	1	-9
0310229	Bushing - (Between pulleys) (Eff. serials 7003 thru 7393)						1	1	-10
0310432	Bushing - (Between pulleys) (Eff. serials 7394 & on)						1	1	
AN6-40A	Bolt - (Attach pulleys) (Eff. serials 7003 thru 7393)						1	1	-11
AN6-44A	Bolt - (Attach pulleys) (Eff. serials 7394 & on)						1	1	
AN364-624	Nut - (Attach pulleys)						1	1	-12
AN210-3A	Pulley - Aileron (Sta. 65.187)						2	2	-13
AN960-416L	Washer - Aileron pulley						2	2	-14
AN4-14A	Bolt - (Attach pulley) (see figure 72)						Ref	Ref	-15
AN365-428	Nut - (Attach pulley) (see figure 72)						Ref	Ref	-16
0411489	Bushing - Aileron pulley (see figure 72)						Ref	Ref	-17
0411421-8	Guard - Aileron pulley (see figure 72)						Ref	Ref	-18
AN210-4A	Pulley - Aileron						2	2	-19
0310211	Spacer - Aileron pulley (see figure 70)						Ref	Ref	-20
AN4-36A	Bolt - (Attach pulley) (see figure 70)						Ref	Ref	-21
AN365-428	Nut - (Attach pulley) (see figure 70)						Ref	Ref	-22
AN210-4A	Pulley - Aileron upper						2	2	-23
AN4-7A	Bolt - (Attach pulley)						2	2	-24
AN365-428	Nut - (Attach pulley)						2	2	-25
AN380-2-4	Pin - Cotter (cable guard)						4	4	-26
AN210-4A	Pulley - Aileron						2	2	-27
AN4-10A	Bolt - (Attach pulley)						2	2	-28
AN365-428	Nut - (Attach pulley)						2	2	-29
AN380-2-4	Pin - Cotter (cable guard)						4	4	-30
AN23-12	Bolt - Clevis (attach cable to bellcrank)						4	4	-31
AN210-4A	Pulley - Aileron control wing						2	2	-32
AN380-2-13	Pin - Cotter						4	4	
AN210-4A	Pulley - Aileron control wing						2	2	
AN4-11A	Bolt - (Attach pulley)						2	2	
AN365-428	Nut - (Attach pulley)						2	2	
0320127	Fairlead - Aileron cable						2	2	
PK76XZ-8-10	Screw - (Attach fairlead)						4	4	
NAS446-4	Nut - (Attach fairlead)						4	4	
0310207-3	Cable Assembly - Aileron carry-thru						1	1	
AN155-32L	Barrel - Turnbuckle						1	1	
0310207-10	Cable Assembly - Aileron carry-thru						1	1	
#6	Fairlead - Aileron carry-thru cable (formica)						2	2	
0410108-1	Clamp - (Attach fairlead) (Dinnerman A2980A-6)						1	1	
AN742-D6	Screw - (Attach fairlead)						1	1	
PK76XZ-8-10	Screw - (Attach fairlead)						4	4	
NAS446-3	Nut - (Attach fairlead)						1	1	
0310-92	Fairlead - Aileron cable outboard wing						4	4	
AN25-332R-0	Screw - (Attach fairlead)						4	4	
AN365-832	Nut - (Attach fairlead)						4	4	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

	3	3	-22	0310225	Main lead - Flap cable		
-25	U310207-8	Cable Assembly = Flap control			2	2	
-26	AN155-8S	Barrel - Turnbuckle			2	2	
-27	0310450	Spring - Flap return (Eff. serials 7348 & on)			2	2	
-28	NAS383-2	Pulley - Flap control			4	4	
-29	0411490	Bushing - Flap pulley			4	4	
-30	AN3-6A	Bolt - (Attach pulley)			4	4	
-31	AN365-1032	Nut - (Attach pulley)			4	4	
-32	AN380-2-3	Pin - Gutter (cable guard)			6	6	
-33	AN3-12A	Bolt - (Attach cable)			2	2	
-34	AN365-1032	Nut - (Attach cable)			2	2	
	*	These parts are used in airplanes incorporating a flap position indicator. These parts are no longer available since the flap position indicator is not required in 190-195 airplanes and have been removed from later serials.					

SERIAL NUMBER AND COLOR IF APPLICABLE

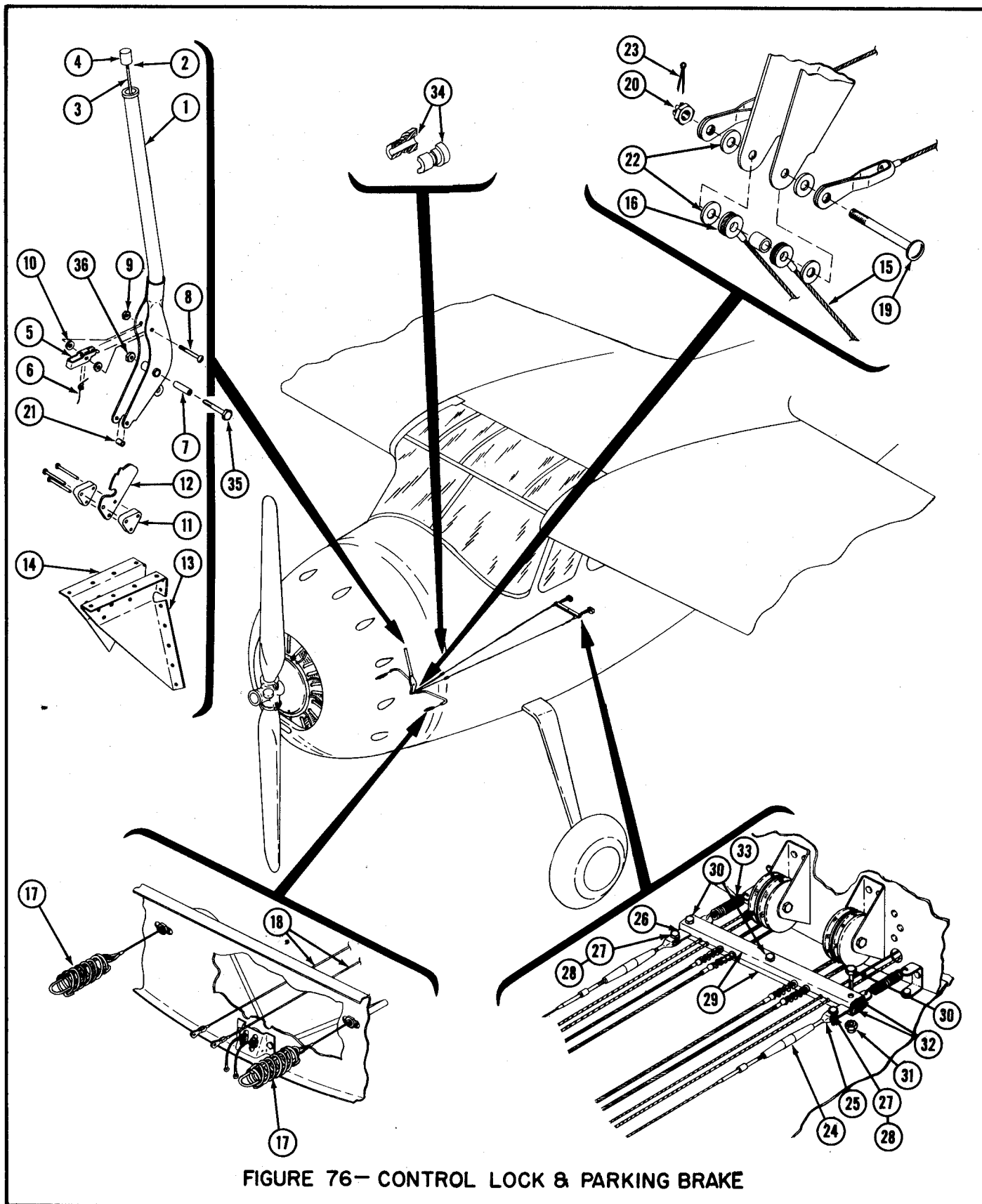


FIGURE 76- CONTROL LOCK & PARKING BRAKE

ILLUSTRATED PARTS CATALOG

FIGURE 76

CONTROL LOCK & PARKING BRAKE SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		System Installation - Control lock & parking brake (0310103 Ref)	1	1
	0310270	Lever Assembly - Control lock	1	1
76-1	0310275	Lever - Control lock	1	1
-2	0310276	Plunger Assembly - Control	1	1
-3	0310274	Rod - Control lock actuating	1	1
-4	0425124	Button - Control lock release	1	1
-5	0310189	Pawl - Control lock	1	1
-6	0425130	Spring - Control lock	1	1
-7	0425133	Bushing - Control lever	1	1
-8	AN23-16A	Bolt - (Attach pawl)	1	1
-9	AN365-1032	Nut - (Attach pawl)	1	1
-10	AN960-10	Washer	2	2
	0310231	Bracket Assembly - Control lock (see figure 21 for NHA)	Ref	Ref
-11	0310264	Spacer - Control lock bracket	2	2
-12	0310265	Ratchet - Control lock lever	1	1
-13	0310263	Bracket - Control lock left	1	1
-14	0310263-1	Bracket - Control lock right	1	1
-15	0310208	Cable Assembly - Parking brake (see figure 21)	Ref	Ref
-16	0310208-1	Cable Assembly - Parking brake (see figure 21)	Ref	Ref
-17	0310280	Spring - Control lock brake	2	2
-18	0310207-11	Cable Assembly - Control lock	2	2
-19	AN23-24	Bolt - Clevis (attach cable to lever)	1	1
-20	AN310-3	Nut - (Attach cable to lever)	1	1
-21	0310278	Bushing - Control lock lever	1	1
-22	AN960-10	Washer - Control lock lever	4	4
-23	AN380-2-2	Pin - Cotter	1	1
-24	AN155-8S	Barrel - Turnbuckle	2	2
-25	AN161-8RS	Terminal - Turnbuckle	2	2
-26	0310281	Link - Cable attachment	2	2
-27	AN3-5A	Bolt - (Attach cable to link)	2	2
-28	AN365-1032	Nut - (Attach cable to link)	2	2
-29	0310282	Bar - Control lock	2	2
-30	AN3-10A	Bolt - (Attach bar)	3	3
-31	AN365-1032	Nut - (Attach bar)	3	3
-32	0310268	Filler - Control lock bar	2	2
-33	0310283	Spring - Control lock return	2	2
-34	0310266	Fairlead - Control lock cable	4	4
	0410108-1	Clip	4	4
-35	AN3-13A	Bolt - (Attach lever)	1	1
-36	AN365-1032	Nut - (Attach lever)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

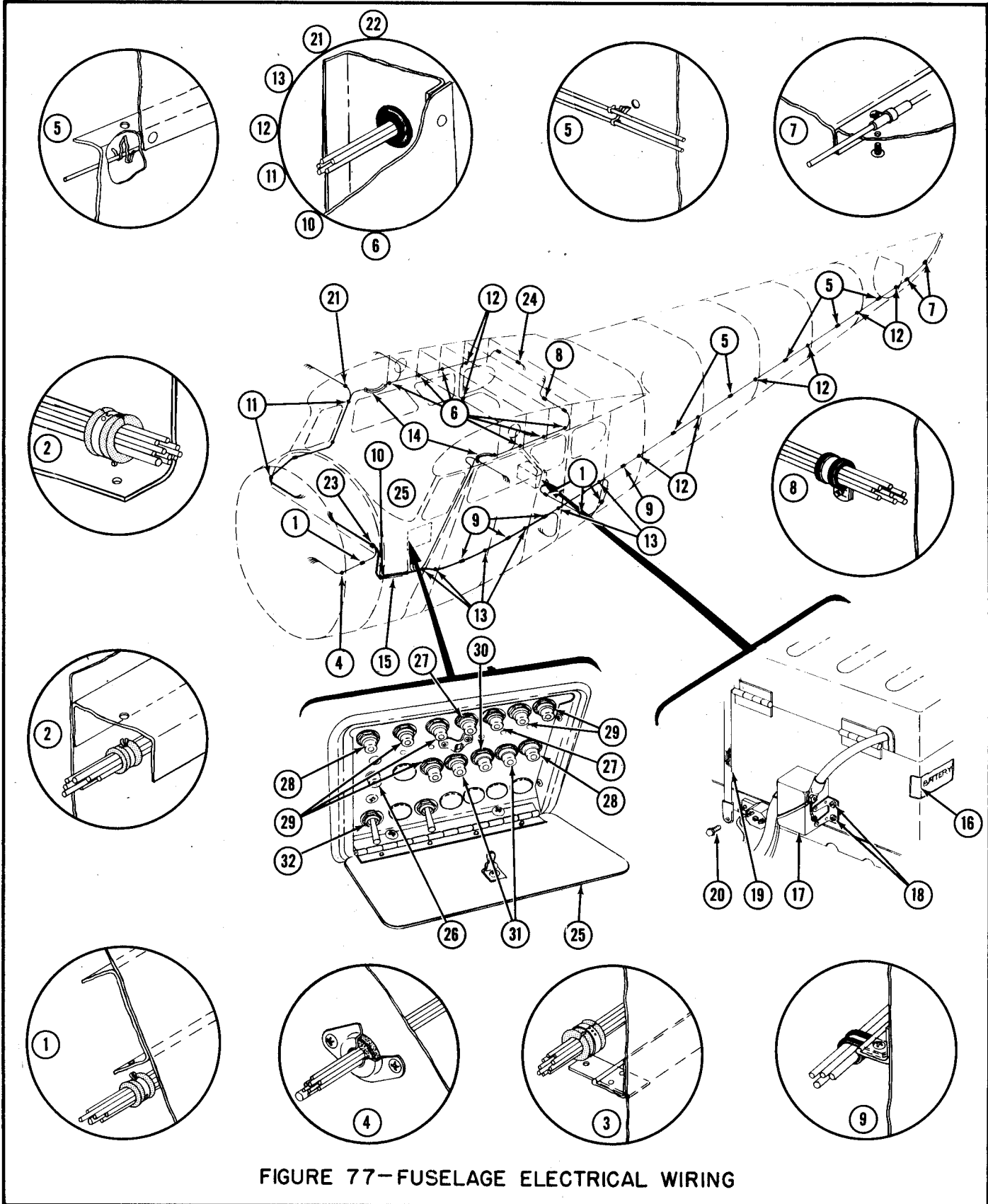


FIGURE 77

FUSELAGE ELECTRICAL WIRING INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

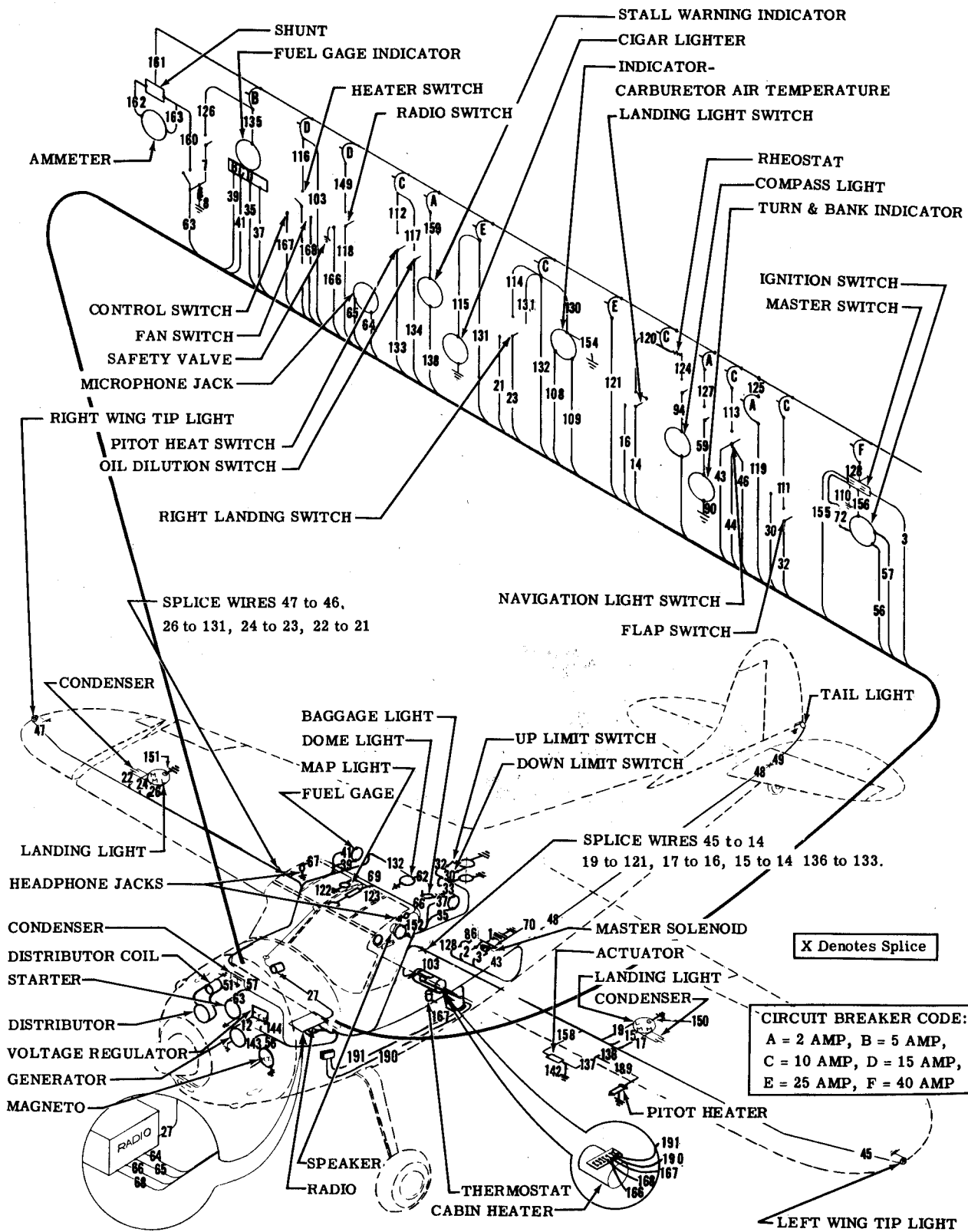


FIGURE 78—ELECTRICAL WIRING DIAGRAM

ILLUSTRATED PARTS CATALOG

FIGURE 78

ELECTRICAL WIRING DIAGRAM

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		Wiring Diagram - Electrical (0300005 Ref)	1	1
78-1	0300005-1	Wire Assembly (battery to master solenoid)	1	1
	F-71	Terminal	1	1
	F-73	Terminal	1	1
-2	0300005-2	Wire Assembly (master solenoid to starter solenoid)	1	1
	F-71	Terminal	1	1
	F-73	Terminal	1	1
-3	0300005-3	Wire Assembly (master solenoid to master switch)	1	1
	A-84	Terminal	2	2
-7	0300005-7	Wire Assembly (starter switch to starter solenoid)	1	1
	A-84	Terminal	1	1
-8	0300005-8	Wire Assembly (starter solenoid to ground)	1	1
	A-36	Terminal	1	1
	A-84	Terminal	1	1
-12	0300005-12	Wire Assembly (generator to voltage control)	1	1
	C-36	Terminal	1	1
	C-71	Terminal	1	1
-14	0300005-14	Wire Assembly (landing light - switch to wing root) - left	1	1
	A-84	Terminal	1	1
	A-50	Disconnect Tip	1	1
	# 7	Coupler	1	1
-15	0300005-15	Wire Assembly (landing light to wing root) - left	1	1
	A-50	Disconnect Tip	1	1
	A-77	Terminal	1	1
-16	0300005-16	Wire Assembly (landing light - switch to wing root) - left	1	1
	A-84	Terminal	1	1
	A-50	Disconnect Tip	1	1
	# 7	Coupler	1	1
-17	0300005-17	Wire Assembly (landing light - light to wing root) - left	1	1
	A-50	Disconnect Tip	1	1
	A-77	Terminal	1	1
-19	0300005-19	Wire Assembly (landing light - light to wing root) - left	1	1
	C-50	Disconnect Tip	1	1
	C-36	Terminal	1	1
-21	0300005-21	Wire Assembly (landing light - switch to wing root) - right	1	1
	A-50	Disconnect Tip	1	1
	A-84	Terminal	1	1
	# 7	Coupler	1	1
-22	0300005-22	Wire Assembly (landing light - light to wing root) - right	1	1
	A-50	Disconnect Tip	1	1
-23	0300005-23	Wire Assembly (landing light - switch to wing root) - right	1	1
	A-50	Disconnect Tip	1	1
	A-84	Terminal	1	1
	# 7	Coupler	1	1
-24	0300005-24	Wire Assembly (landing light - light to wing root) - right	1	1
	A-50	Disconnect Tip	1	1
-26	0300005-26	Wire Assembly (landing light - light to wing root) - right	1	1
	C-50	Disconnect Tip	1	1
-27	0300005-27	Wire Assembly (radio to antenna) - coaxial	1	1
-30	0300005-30	Wire Assembly (flap switch to flap down limit switch)	1	1
	B-33	Terminal	1	1
-32	0300005-32	Wire Assembly (flap switch to flap up limit switch)	1	1
	B-33	Terminal	2	2
-35	0300005-35	Wire Assembly (fuel indicator to left tank unit)	1	1
	A-84	Terminal	1	1
-37	0300005-37	Wire Assembly (fuel indicator to left tank unit)	1	1
	A-84	Terminal	1	1
-39	0300005-39	Wire Assembly (fuel indicator to right tank unit)	1	1
	A-84	Terminal	1	1
-41	0300005-41	Wire Assembly (fuel indicator to right tank unit)	1	1
	A-84	Terminal	1	1
-43	0300005-43	Wire Assembly (navigation light switch to baggage compartment)	1	1
	A-50	Disconnect Tip	1	1
	A-84	Terminal	1	1
-44	0300005-44	Wire Assembly (navigation light switch to left wing root)	1	1
	A-50	Disconnect Tip	1	1
	A-84	Terminal	1	1
-45	0300005-45	Wire Assembly (wing root to left wing tip light)	1	1
	A-50	Disconnect Tip	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 78

ELECTRICAL WIRING DIAGRAM (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	# 7						Coupler	1	1
78-46	0300005-46						Wire Assembly (navigation light switch to right wing root)	1	1
	A-50						Disconnect Tip	1	1
	A-84						Terminal	1	1
-47	0300005-47						Wire Assembly (wing root to right wing tip light)	1	1
	A-50						Disconnect Tip	1	1
	# 7						Coupler	1	1
-48	0300005-48						Wire Assembly (baggage compartment to stinger)	1	1
	A-50						Disconnect Tip	2	2
	# 7						Coupler	1	1
-49	0300005-49						Wire Assembly (stinger to tail light)	1	1
	A-50						Disconnect Tip	1	1
	# 7						Coupler	1	1
-51	0400005-51						Wire Assembly (ignition coil to condenser)	1	1
	A-36						Terminal	1	1
	A-84						Terminal	1	1
-56	0300005-56						Wire Assembly (ignition switch to magneto)	1	1
	A-84						Terminal	1	1
-57	0300005-57						Wire Assembly (ignition switch to condenser)	1	1
	A-36						Terminal	1	1
	A-84						Terminal	1	1
	BB						Connector	1	1
-59	0300005-59						Wire Assembly (turn and bank indicator to switch)	1	1
	A-84						Terminal	2	2
-62	0300005-62						Wire Assembly (dome light to baggage light)	1	1
-63	0300005-63						Wire Assembly (starter to starter solenoid)	1	1
	F-71						Terminal	1	1
	F-73						Terminal	1	1
-64	0300005-64						Wire Assembly (radio to microphone jack)	1	1
	AA						Connector	1	1
-65	0300005-65						Wire Assembly (radio to microphone jack)	1	1
	AA						Connector	1	1
-66	0300005-66						Wire Assembly (radio to head phone jack)	1	1
	AA						Splice	1	1
-67	0300005-67						Wire Assembly (headphone jack to headphone jack)	1	1
-68	0300005-68						Wire Assembly (radio to speaker)	1	1
	AA						Splice	1	1
-69	0300005-69						Wire Assembly (map light to fluorescent light)	1	1
	A-77						Terminal	1	1
-70	0300005-70						Wire Assembly (master solenoid coil to terminal)	1	1
	A-71						Terminal	1	1
	A-84						Terminal	1	1
-72	0300005-72						Wire Assembly (master switch to ignition switch)	1	1
	C-77						Terminal	2	2
-90	0300005-90						Wire Assembly (turn and bank indicator to ground)	1	1
	A-36						Terminal	1	1
	A-84						Terminal	1	1
-94	0300005-94						Wire Assembly (compass light to compass light rheostat)	1	1
-97	0300005-97						Wire Assembly (switch to external power receptacle)	1	1
	F-71						Terminal	1	1
	F-73						Terminal	1	1
-98	0300005-98						Wire Assembly (external power receptacle to ground)	1	1
	F-71						Terminal	1	1
	F-73						Terminal	1	1
-101	0300005-101						Wire Assembly (heater switch to thermostat) (Eff. serials 7003 thru 7512)	1	1
	B-33						Terminal	1	1
	B-77						Terminal	1	1
-102	0300005-102						Wire Assembly (thermostat to relay) (Eff. serials 7003 thru 7513)	1	1
	B-77						Terminal	1	1
-103	0300005-103						Wire Assembly (heater switch to relay)	2	2
	B-33						Terminal	1	1
	B-77						Terminal	1	1
-104	0300005-104						Wire Assembly (heater switch to relay) (Eff. serials 7003 thru 7512)	1	1
	B-33						Terminal	1	1
	B-77						Terminal	1	1
-108	0300005-108						Wire Assembly (carburetor air temperature gage to bulb)	1	1
	A-36						Terminal	1	1
	AN3106-125-3S						Plug	1	1
-109	0300005-109						Wire Assembly (carburetor air temperature gage to bulb)	1	1
	A-36						Terminal	1	1
	AN3106-125-3S						Plug	1	1
-110	0300005-110						Wire Assembly (master switch to ground)	1	1
	A-77						Terminal	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

[illegible]

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

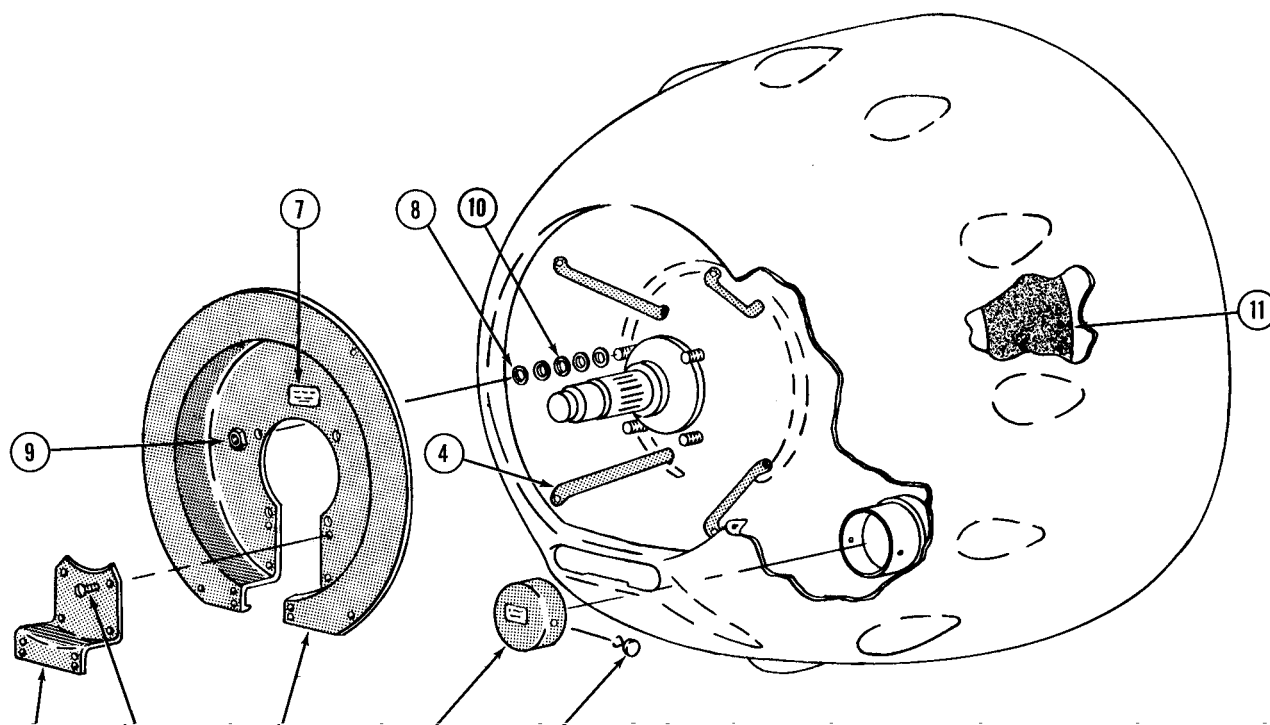


FIGURE 79—WINTERIZATION EQUIPMENT

MENT MODEL 195

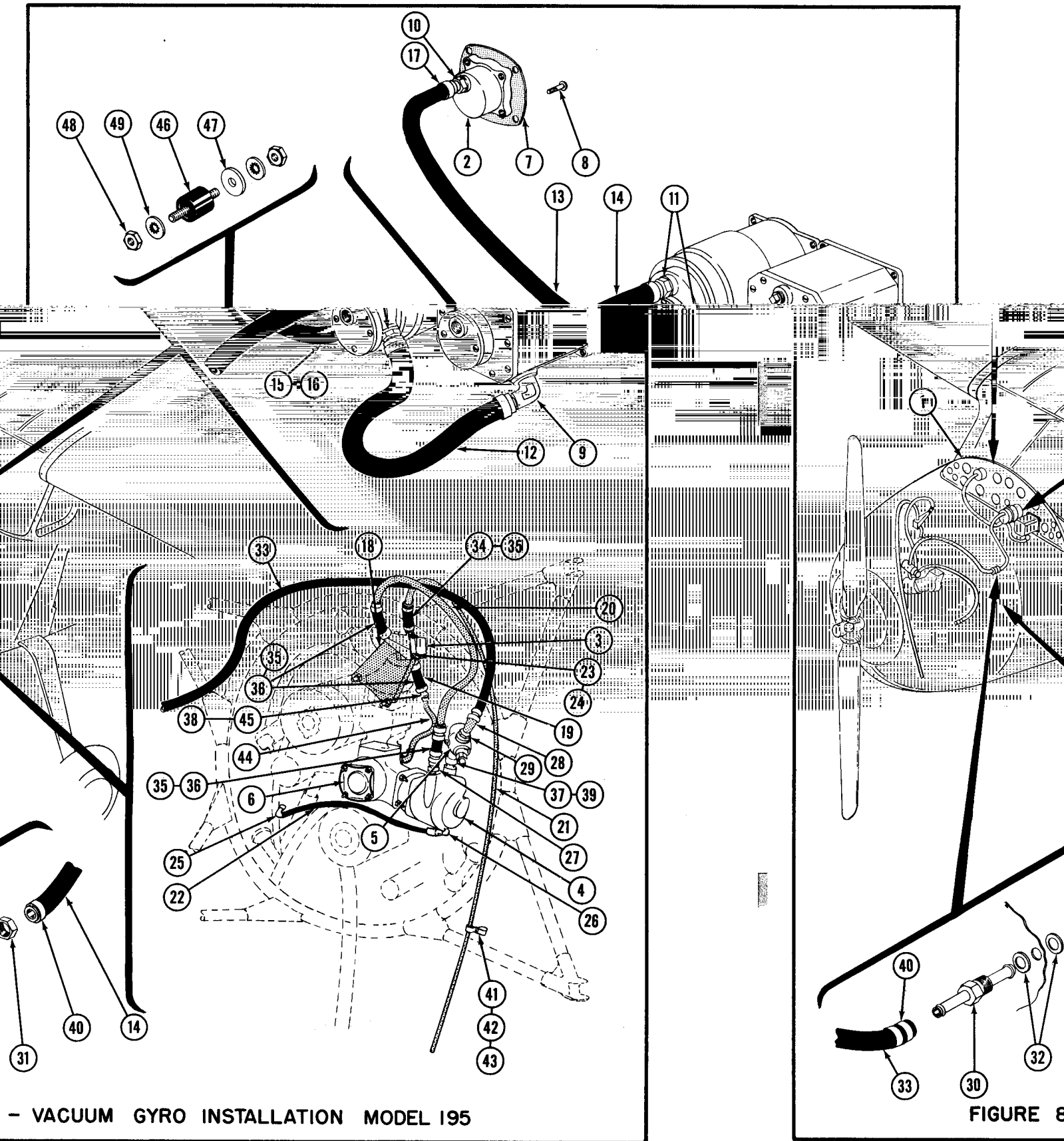
FIGURE

AND

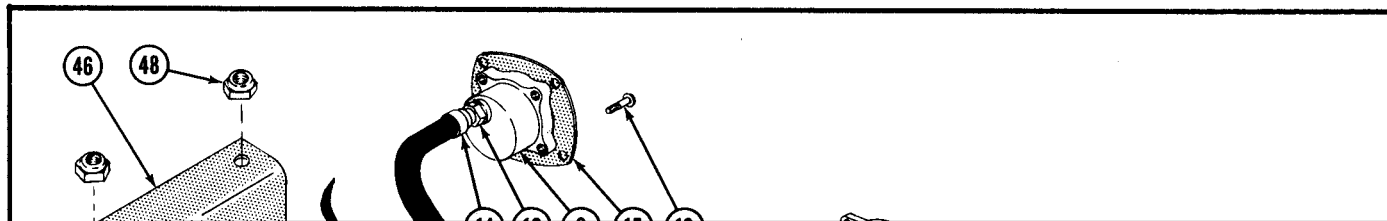
UNITS REQUIRED ON MODELS.....

FIGURE 80 - WINTERIZATION EQUIPMENT MODEL 80

[illegible]



ILLUSTRATED PARTS CATALOG



-32	AN849-8D	Connector - Firewall	1
-33	AN924-6D	Nut - Firewall connector	1
-34	AN960-A916L	Washer - Firewall connector	2
-35	AN911-3	Nipple - Pump to valve	1
-36	AN914-3	Elbow - Pump to valve	1
-37	AN840-8	Adapter - (Relief valve to nose)	1
-38	AN912-8	Bushing - Oil separator	1
-39	O350313-1	Coupling - Oil tank vent	1
-40	NAS434-D12	Clamp - Hose support (Tinnerman A2981A-12)	3
-41	AN742-D20	Clamp - Hose support (Tinnerman A2980A-20)	3
-42	PK76XZ-10-8	Screw - (Attach clamp)	3
-43	NAS434-D8	Clamp - Vent line support (Tinnerman A2981A-8)	2
-44	AN742-D8	Clamp - Vent line support (Tinnerman A2980A-8)	2
-45	PK76XZ-10-8	Screw - (Attach clamp)	2
NOTE:			
To install these kits on 190 airplanes prior to serials 7272 it is permissible to remove the fuel pump			
the fuel selector valve in lieu of 0311453 placard.			
-46	O313313	* Bracket - Instrument mounting	1
-47	AN526-10R8	* Screw - (Attach bracket)	2
-48	AN365-1032	* Nut - (Attach bracket)	2
NOTE:			
Parts marked (*) are used to relocate the suction gage when a Cessna Radio Combination #4 is installed. (see figure 111).			

-13	0300005-158	Wire Assembly - (Wing root to stall warning actuator)	1	1
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ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 85 OPTIONAL EQUIPMENT - STRETCHER & CARGO TIE-DOWN LUGS INSTALLATION

PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
		190	195
	1 2 3 4 5 6		
	Stretcher And Cargo Tie-Down Lugs Installation	1	1
0311807-1	Stretcher & Auxiliary Baggage Compartment Installation	1	1
52-3-561	Installation Kit - Portable stretcher	1	1
0300109	Support Assembly - Stretcher	1	1
AN366F1032	Nutplate - (Attach support)	2	2
AN3-3A	Bolt - (Attach support)	2	2
100	Stretcher - Gran portable	1	1
0311361	Placard - Baggage	1	1
52-3-544	Installation Kit - Auxiliary baggage compartment (See figure 86)	1	1
52-3-598	Installation Kit - Rear seat back (Cessna 0300111)	1	1
	NOTE:		
	When ordering Kit 52-3-598, please state airplane serial number and type of seat back desired (upholstered or canvas covered).		
0300111-11	Seat Back Assembly - Upholstered	1	1
	NOTE:		
	This seat incorporates broadcloth and leather upholstery.		
0300111-42	Seat Back Assembly - Canvas covered (optional in lieu of 0300111-11)	1	1
	NOTE:		
	This assembly is the same as 0300111-11 except 8 oz. duct canvas cover replaces broadcloth and leather upholstery.		
0300111-8	Bracket Assembly - Seat brace	1	1
0300111-10	Brace - Seat back	1	1
AN3-4A	Bolt - (Attach brace)	1	1
AN365-1032	Nut - (Attach brace)	1	1
NAS43-3-8	Spacer	1	1
AN935-10	Washer	1	1
AN350-1032	Nut - (Attach brace at rear)	1	1
AN415A	Pin - (Attach seat back to seat bottom)	2	2
52-3-553	Installation Kit Cargo tie down lugs	1	1
0511165	Eyebolt - Cargo tie down	7	7
AN366-F428	Nutplate	7	7
0511166	Slide Assembly - Cargo tie down	2	2
0511165	Eyebolt	4	4
AN365-428	Nut	4	4
0311312-4	Housing	4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

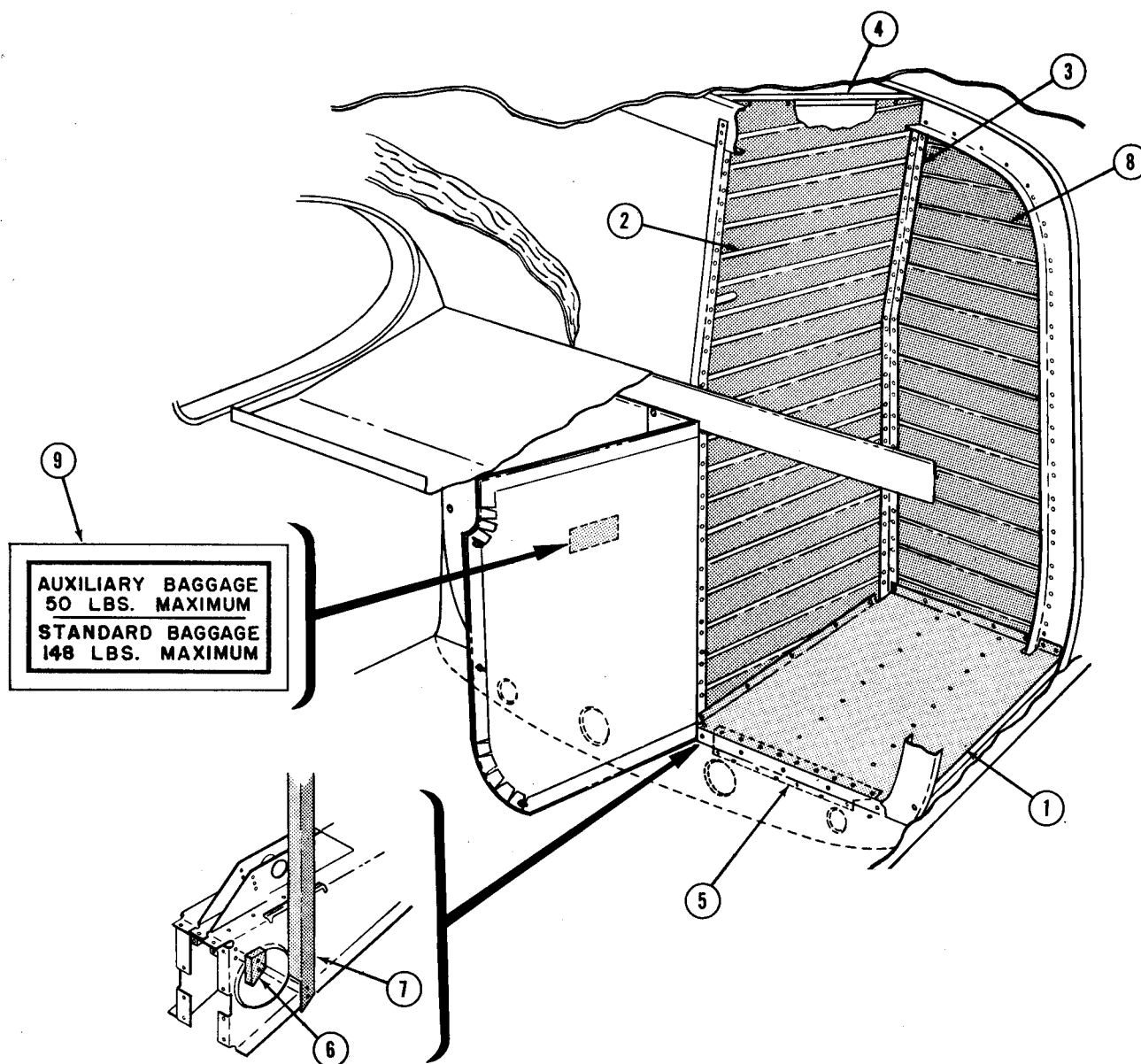
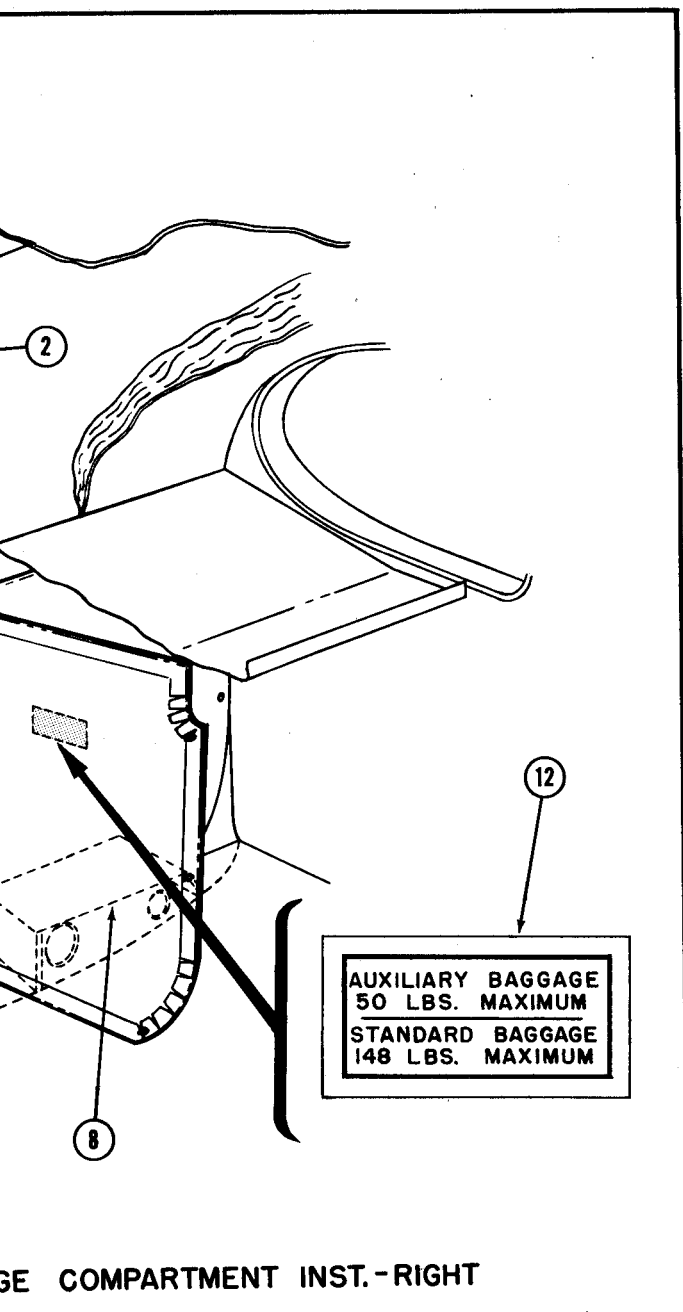


FIGURE 86 - AUXILIARY BAGGAGE COMPARTMENT INST.-LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-544	Installation Kit - Auxiliary baggage compartment left (Cessna 0311807)	1	1
86-1	0311807-6	Floorboard Assembly - Auxiliary baggage	1	1
-2	0311807-17	Panel - Auxiliary baggage compartment side	1	1
-3	0311807-11	Angle - Side and back support	1	1
-4	0311807-18	Angle - Side support upper	1	1
-5	0311807-19	Angle - Floorboard support	1	1
-6	0311807-20	Spacer - Angle	1	1
-7	0311807-21	Angle - Panel support	1	1
-8	0311807-32	Panel - Auxiliary baggage compartment rear	1	1
-9	0311807-3	Placard - Baggage	1	1

ORDER BY-PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



BAGGAGE COMPARTMENT INST.-RIGHT

NAME	UNITS REQUIRED ON MODELS	
	190	195
Baggage compartment right (Cessna)	1	1
Auxiliary side	1	1
Compartment side	1	1
Compartment rear	1	1
Port	1	1
	1	1
	1	1
	1	1
	2	2
	2	2

-12 0311807-3

Placard - Baggage

ORDER BY PART NUMBER AND NAME

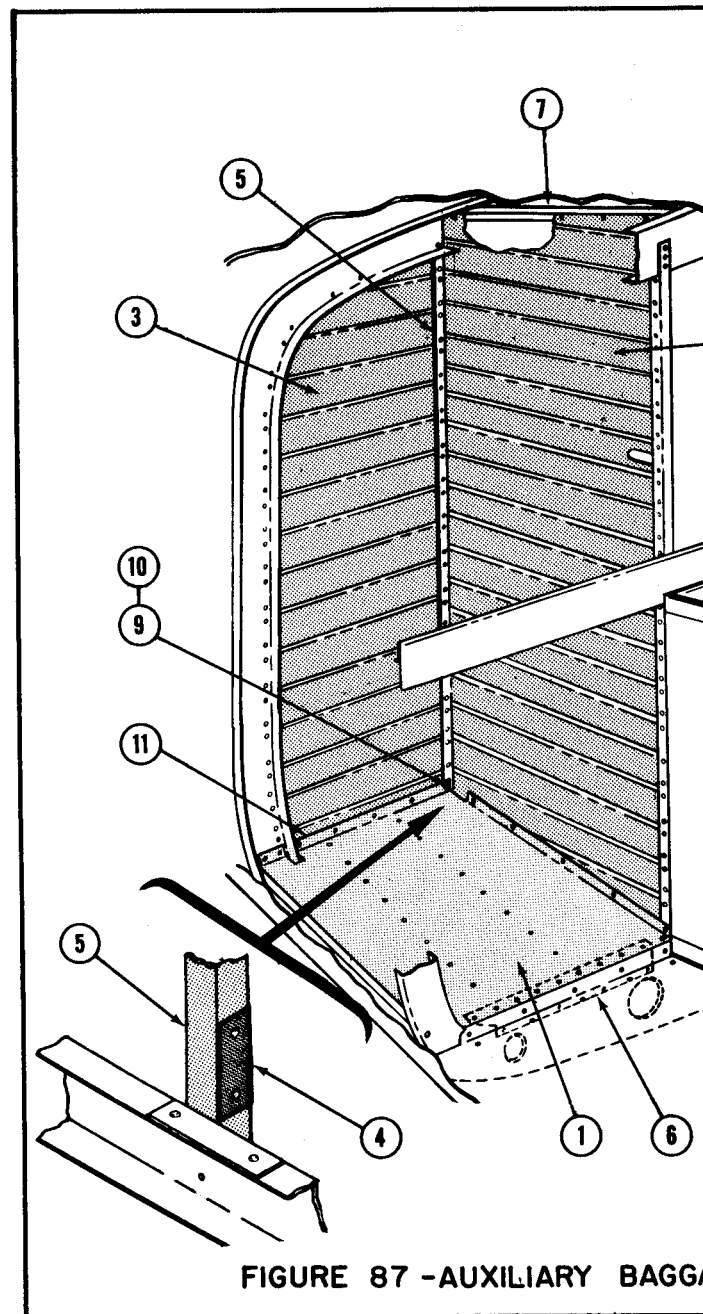


FIGURE 87 - AUXILIARY BAGGAGE

FIGURE AND REF. NO.	PART NUMBER	PART NAME					
		1	2	3	4	5	6
	52-3-589	Installation Kit - Auxiliary					
87-1	0311857-9	Floorboard Assembly - Au					
-2	0311857-5	Panel - Auxiliary baggage					
-3	0311857-6	Panel - Auxiliary baggage					
-4	0311857-4	Rub Strip - Back support					
-5	0311857-2	Angle - Side and back su					
-6	0311857-10	Angle - Floorboard suppo					
-7	0311807-18	Angle - Side support upp					
-8	0311857-11	Shelf Assembly - Battery					
-9	AN526-1032-A	Screw - (Attach angle)					
	AN305-1032	Nut - (Attach angle)					
	0311857-2	Angle - Bag					

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

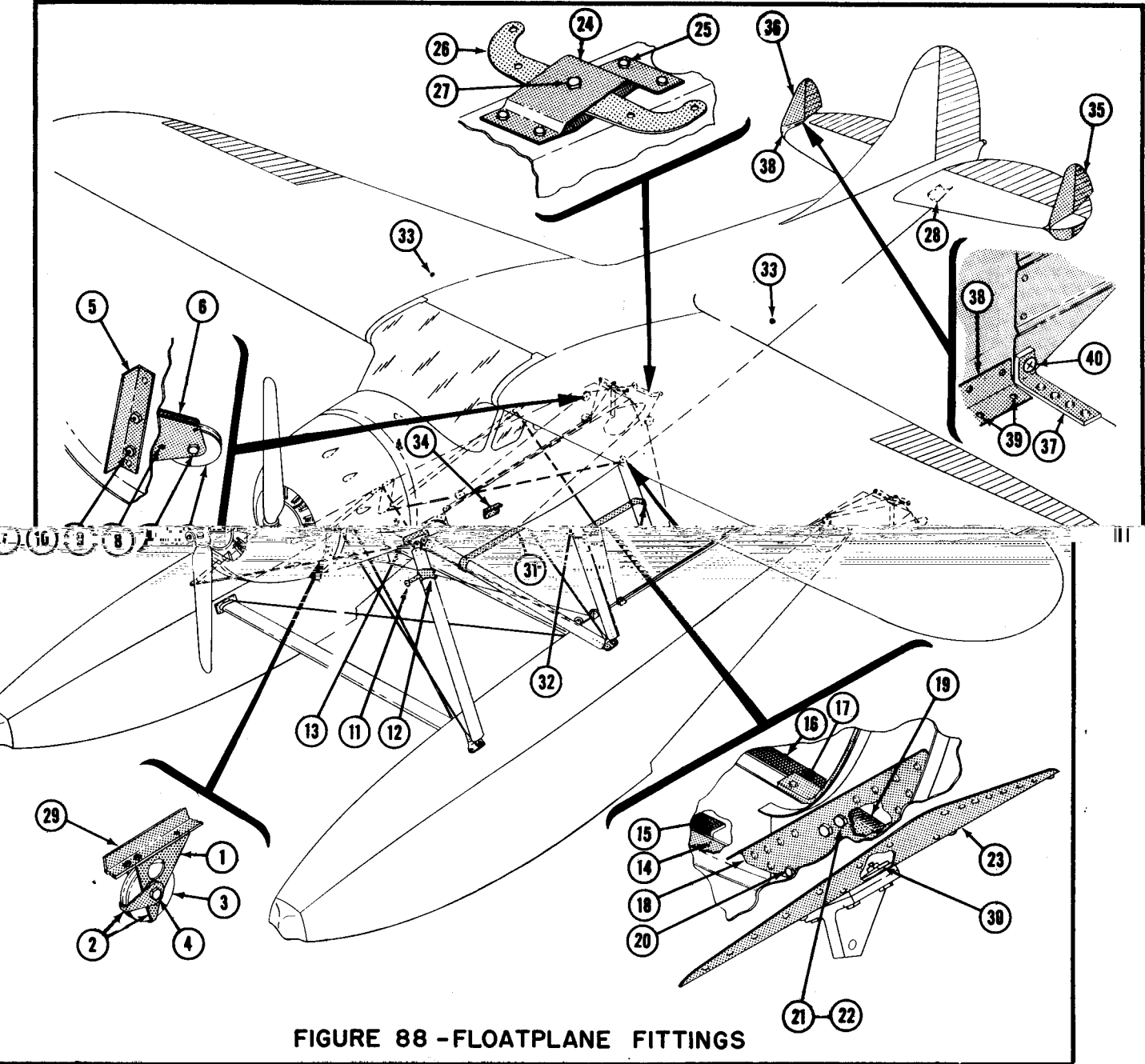


FIGURE 88 -FLOATPLANE FITTINGS

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-505	Installation Kit - Floatplane fittings (Cessna 0341102)	1	1
-1	0411468	Bracket - Pulley	1	1
-2	0411421-4	Guard - Pulley	2	2
-3	A-130	Pulley - Formica	1	1



ILLUSTRATED PARTS CATALOG

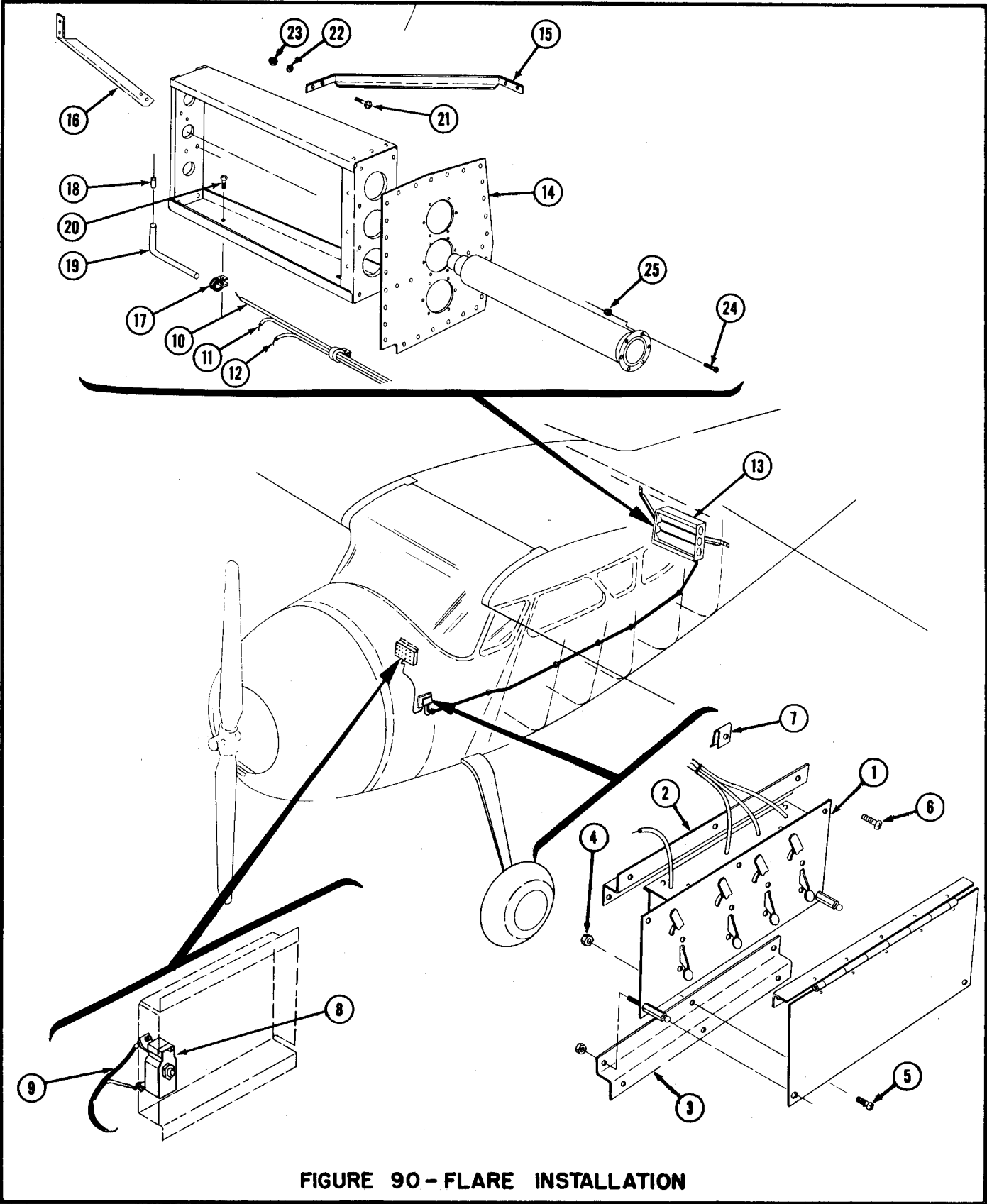


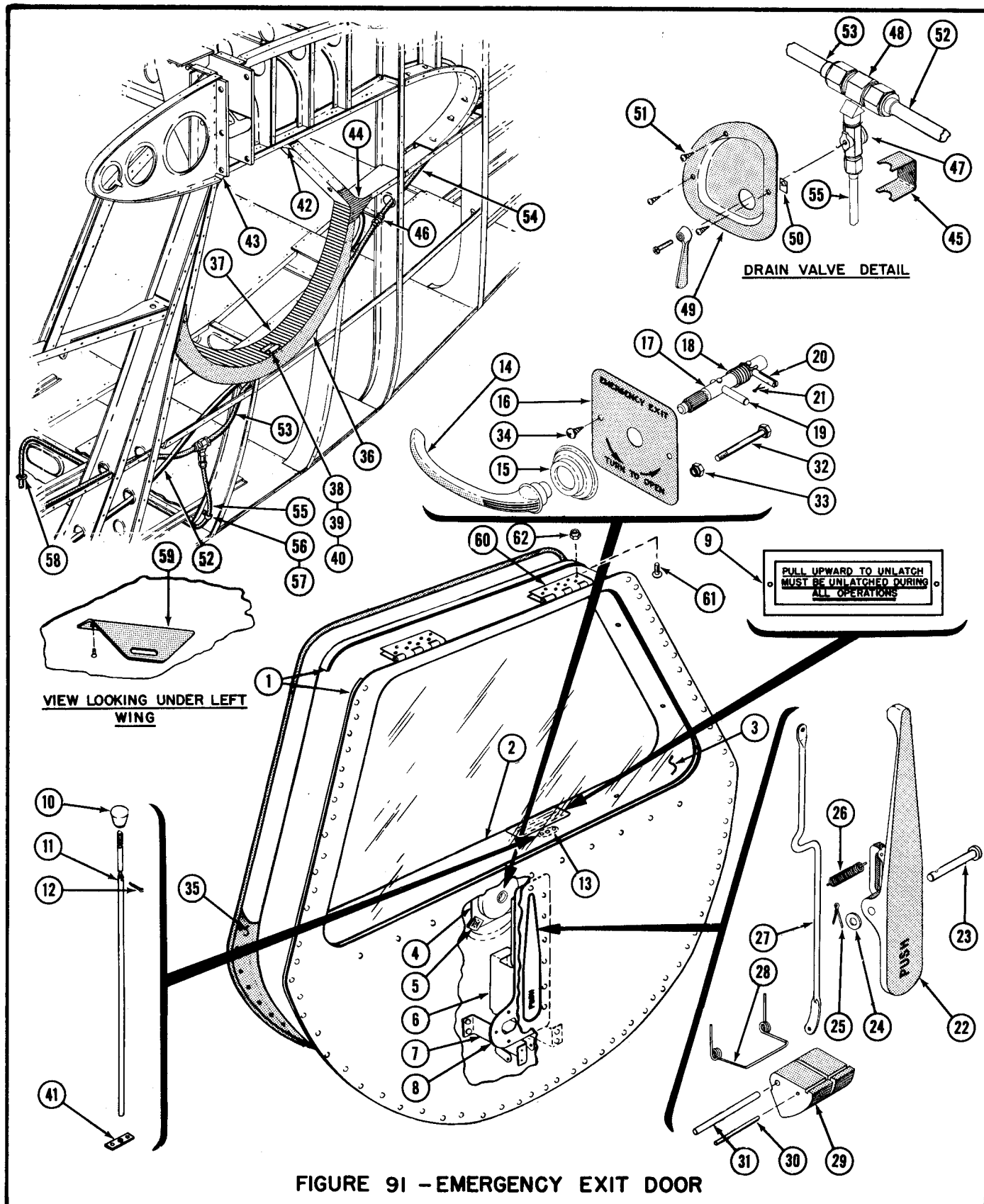
FIGURE 90 - FLARE INSTALLATION

FIGURE 90

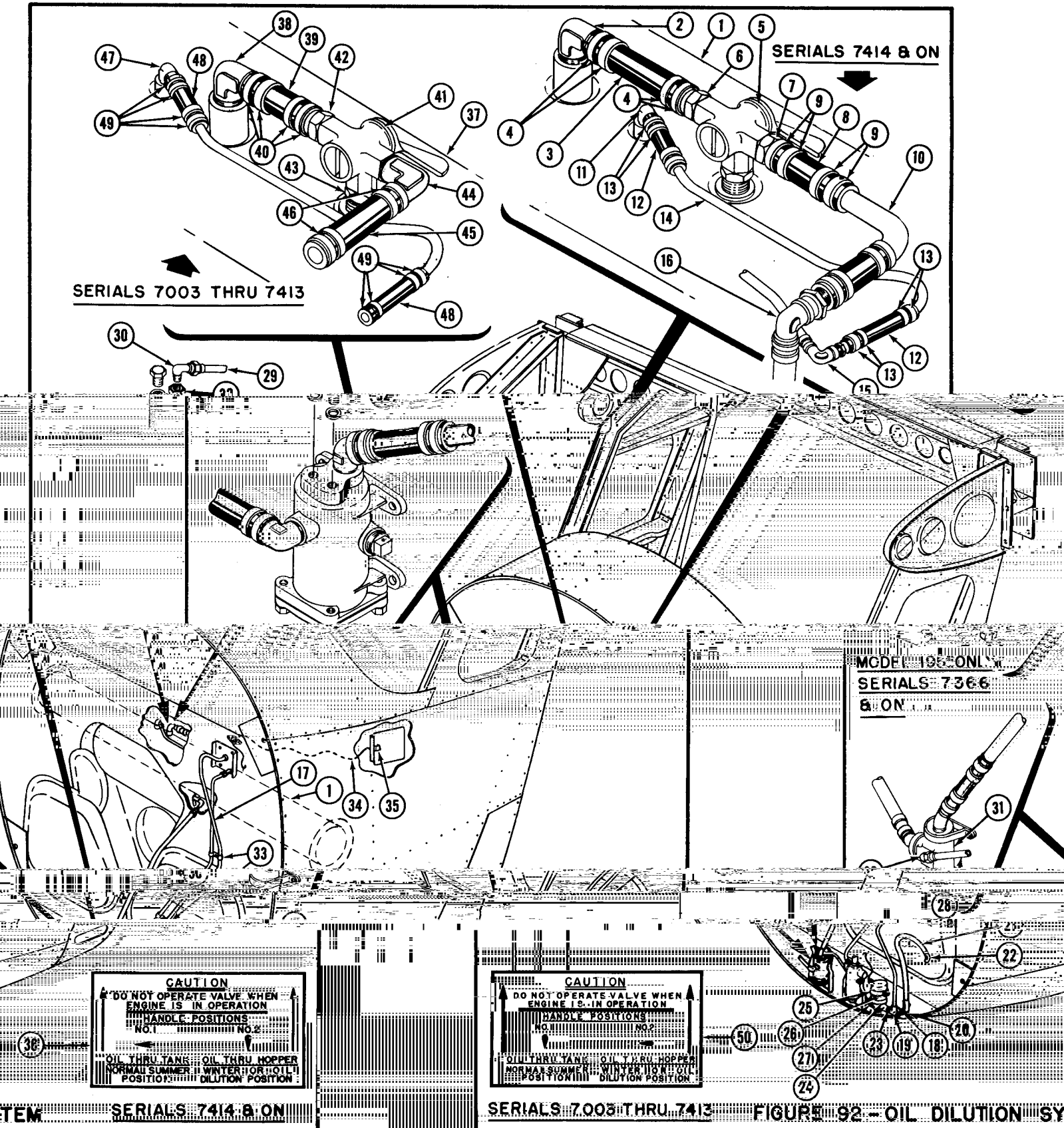
OPTIONAL EQUIPMENT - FLARE INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



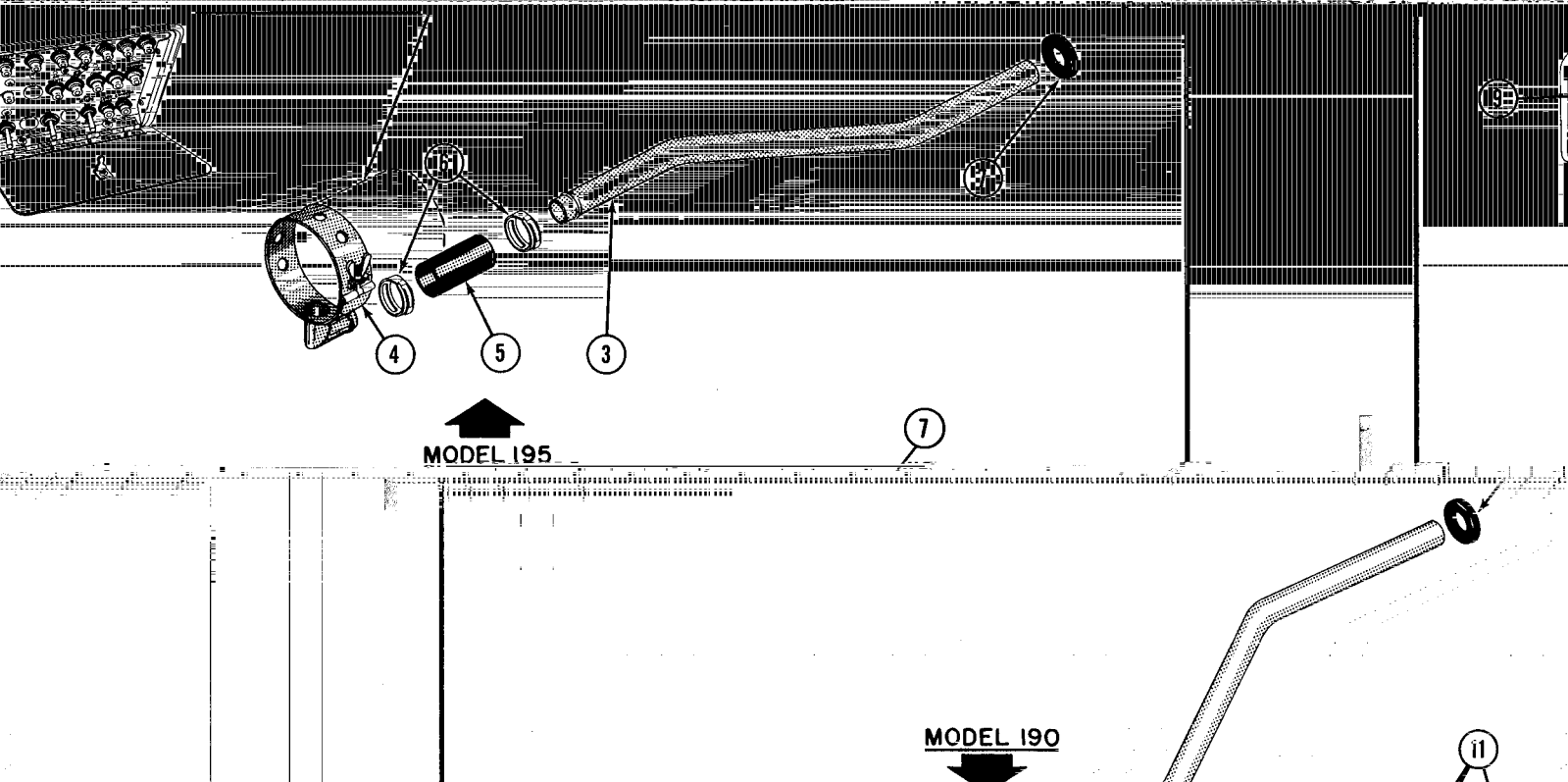
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ILLUSTRATED PARTS CATALOG

GENERATOR DRIVE



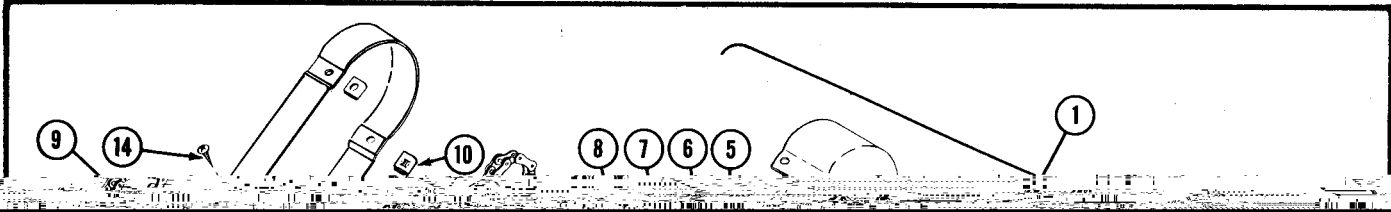
-6	AN365-1032	Nut - Attach receptacle)	2	2
-7	0312155-10	Strap - Ground	1	1
-8	0300005-97	Cable - Battery to receptacle	1	1

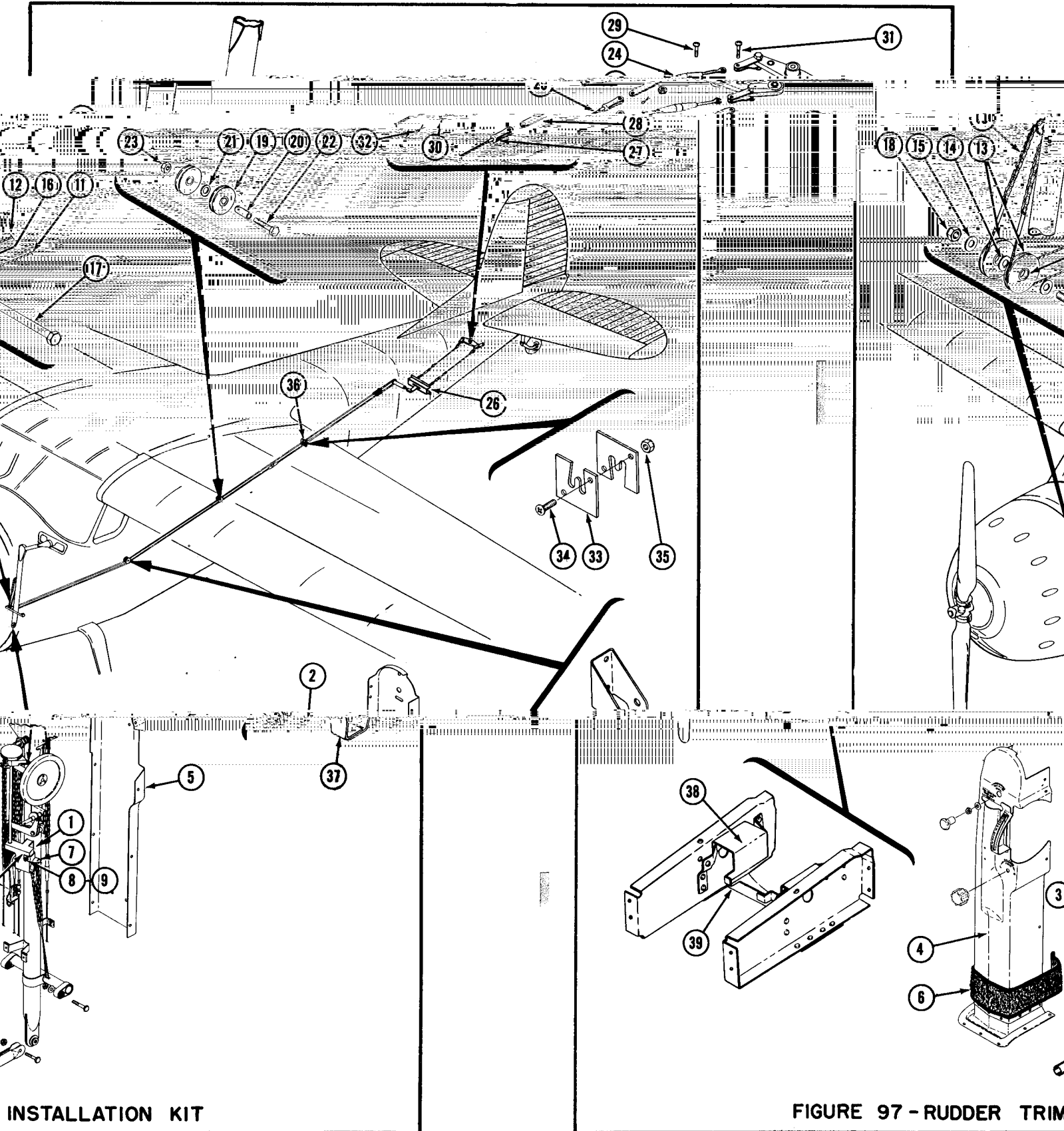
ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG





INSTALLATION KIT

FIGURE 97 - RUDDER TRIM

ILLUSTRATED PARTS CATALOG

FIGURE 97 OPTIONAL EQUIPMENT - RUDDER TRIM (EFF. SERIALS 7003 THRU 7393)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-578	Installation Kit - Rudder trim (Cessna 0310444)	1	1
97-1	0310430-2	Plate - Control tube	2	2
-2	0310430-3	Plate - Control tube	1	1
-3	0310426	Control Assembly - Rudder trim (see figure 68 for breakdown)	1	1
-4	0310434	Cover Assembly - Control column rear (see figure 68 for breakdown)	1	1
-5	0310439	Cover Assembly - Control column front	1	1
-6	0310413-4	Scuff Pad - Control column	1	1
-7	0310431	Guard - Rudder trim chain	1	1
-8	AN526-832R16	Screw - (Attach guard)	1	1
-9	AN365-832	Nut - (Attach guard)	1	1
-10	0310437	Chain - Rudder trim	1	1
-11	0310207-50	Cable Assembly - Rudder trim	1	1
-12	0310207-52	Cable Assembly - Rudder trim	1	1
-13	0310227	Pulley - Rudder trim	2	2
-14	AN960-816	Washer - Between pulleys	2	2
-15	AN960-816L	Washer - Between pulleys	2	2
-16	0310432	Bushing - Control pulley	1	1
-17	AN6-44A	Bolt - (Attach pulleys)	1	1
-18	AN364-624	Nut - (Attach pulleys)	1	1
-19	NAS383-1	Pulley - Rudder trim	4	4
-20	0311491	Bushing - Rudder trim pulley	3	3
-21	AN960-416L	Washer - Rudder trim pulley	2	2
-22	AN3-10A	Bolt - (Attach pulley)	2	2
-23	AN365-1032	Nut - (Attach pulley)	2	2
-24	AN155-8S	Barrel - Turnbuckle	2	2
-25	0310207-51	Cable Assembly - Rudder trim control aft	1	1
-26	0310446	Bracket Assembly - Rudder trim (see figure 73 for breakdown)	1	1
-27	0310207-53	Cable Assembly - Rudder trim aft	2	2
-28	0310421	Link - (Attach cable to bellcrank)	2	2
-29	AN23-9	Bolt - Clevis (Attach cable to link)	6	6
-30	AN310-3	Nut - (Attach cable)	8	8
-31	AN23-11	Bolt - Clevis (Attach cable)	2	2
-32	AN380-2-2	Pin - Cotter	6	6
-33	0310192	Fairlead - Rudder trim cable	4	4
-34	AN526-832-R9	Screw - (Attach fairlead)	4	4
-35	AN365-832	Nut - (Attach fairlead)	4	4
-36	0311443-2	Channel - (Fairlead attachment)	1	1
-37	0412467	Bracket - Pulley	2	2
-38	0311295-1	Bracket - Control Y mount	1	1
-39	0310436	Guard - Control column cables	1	1
		NOTE:		
		This installation is standard on airplanes		
		serial 7394 & on, see figure 73. For air-		
		planes serials 7003 thru 7393 order kit		
		52-3-578.		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

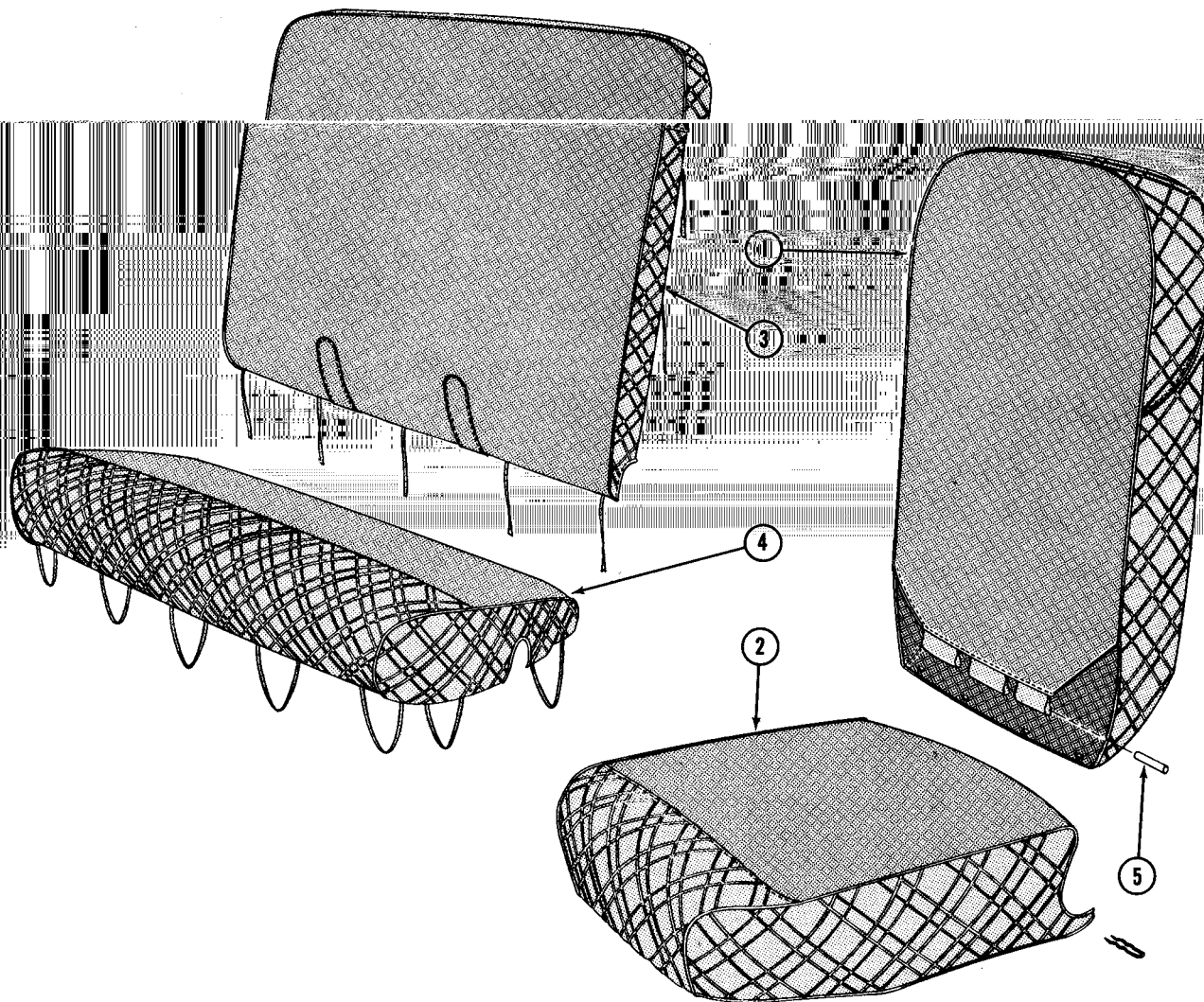


FIGURE 98 - SEAT COVERS

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	AK9047-1	Installation Kit - Plastic seat covers (Cessna 0311205) (Eff. serials 7003 thru 7741)	1	1
98-1	0311205-2	Cover Assembly - Front seat back	2	2
-2	0311205-3	Cover Assembly - Front seat bottom	2	2
-3	0311205-4	Cover Assembly - Rear seat back	1	1
-4	0311205-5	Cover Assembly - Rear seat bottom	1	1
-5	0311618-49	Dowell - Wood (3/8 x 2-3/4)	12	12
	#7435	Hog Rings - (Attach rear back cover)	5	5
	#2278	Staples - (Attach front bottom cover)	4	4
	AK9052-1	Installation Kit - Plastic seat covers (Cessna 0311367) (Eff. serials 7742 & on)	1	1
-1	0311367-2	Cover Assembly - Front seat back	2	2
-2	0311367-3	Cover Assembly - Front seat bottom	2	2
-3	0311367-4	Cover Assembly - Rear seat back	1	1
-4	0311367-5	Cover Assembly - Rear seat bottom	1	1
-5	0311618-49	Dowell - Wood (3/8 x 2-3/4)	12	12
	#2278	Staples - (Attach front seat bottom cover)	4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

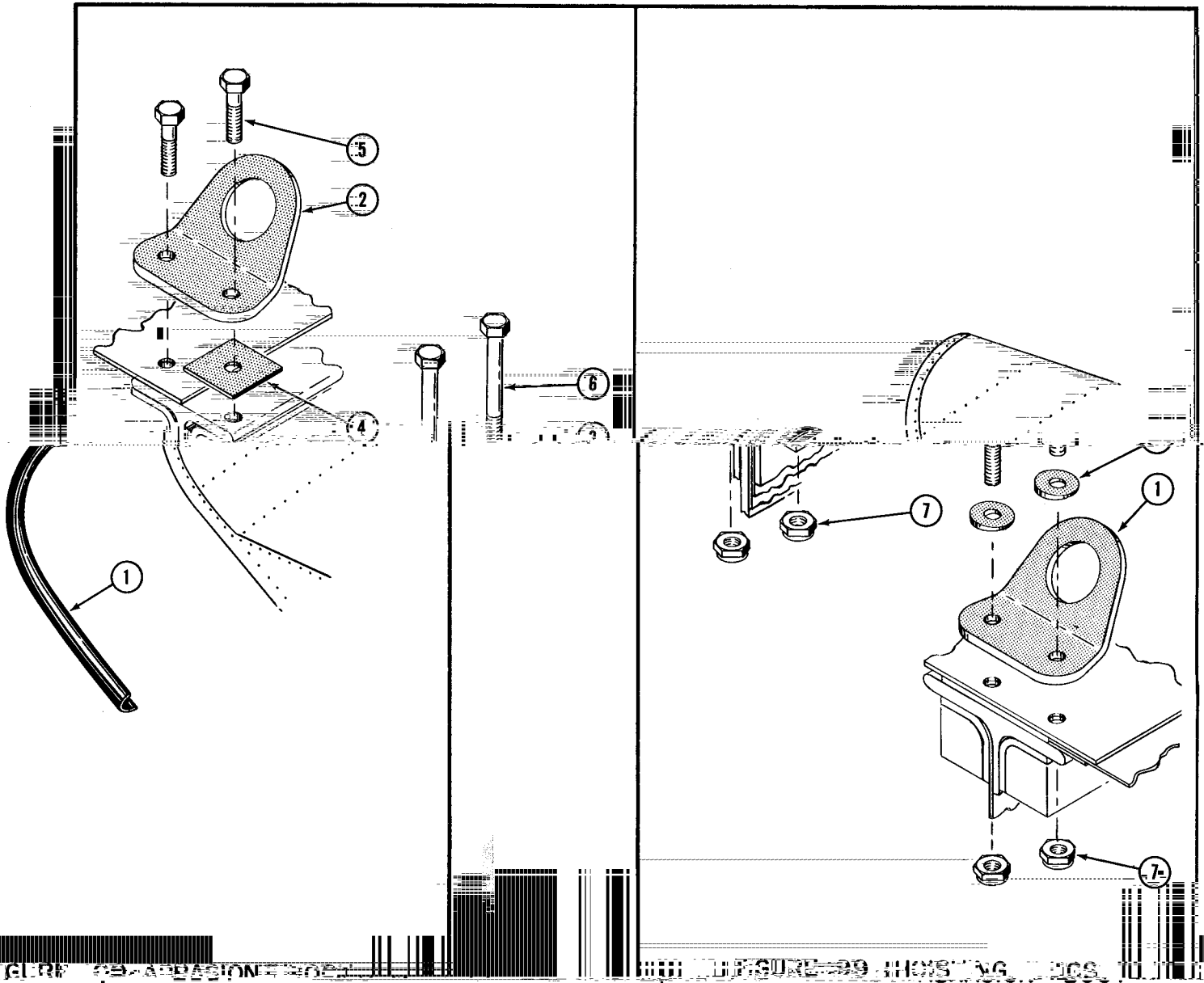


FIGURE 99 - ABRASION BOOTS

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-543	Installation Kit - Hoisting lugs (Cessna 0311701)	1	1
99-1	0311701-3	Lug - Hoisting front	2	2
-2	0311701-4	Lug - Hoisting rear	2	2
-3	0311701-5	Shim - Hoisting lug front	4	4
-4	0430010-2	Shim - Hoisting lug	2	2
-5	AN4-7A	Bolt - (Attach rear lugs)	4	4
-6	AN4-21A	Bolt - (Attach front lugs)	4	4
-7	AN365-428	Nut - (Attach lugs)	8	8

Figure 100 OPTIONAL EQUIPMENT - ABRASION BOOTS

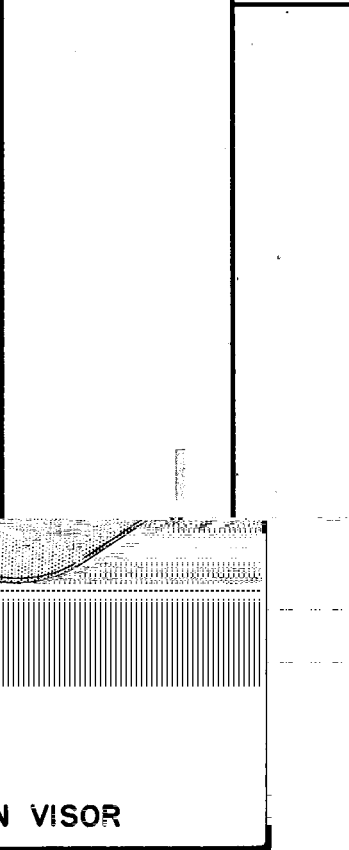
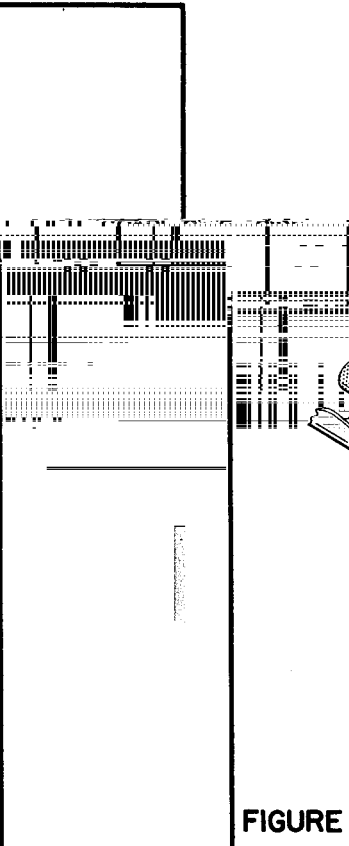
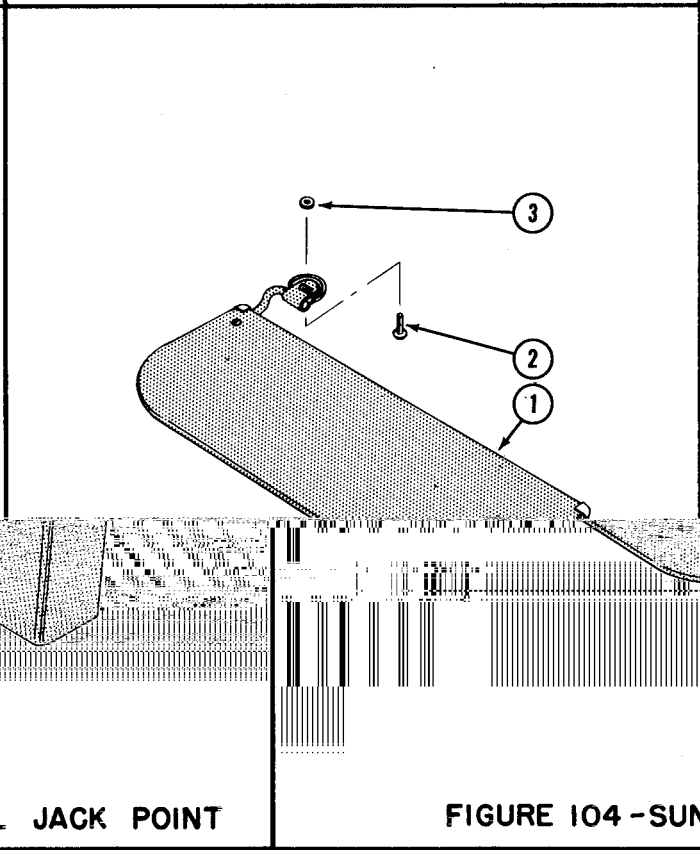
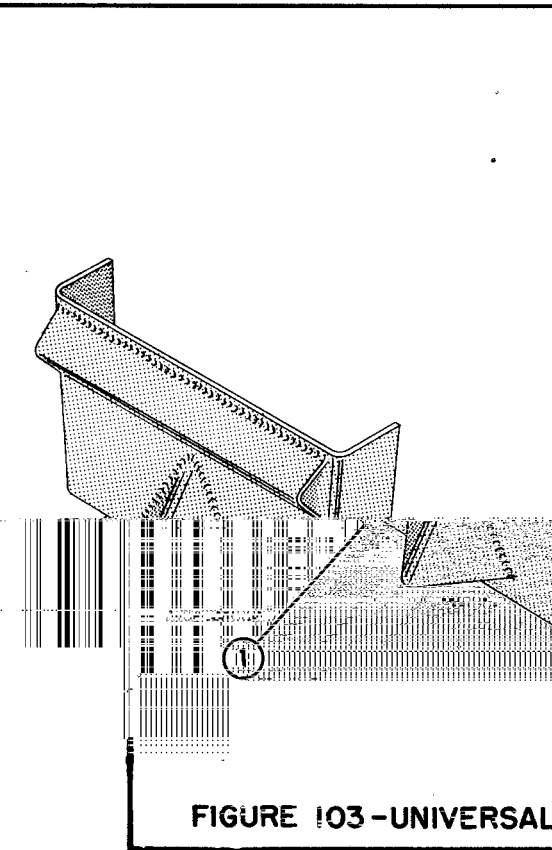
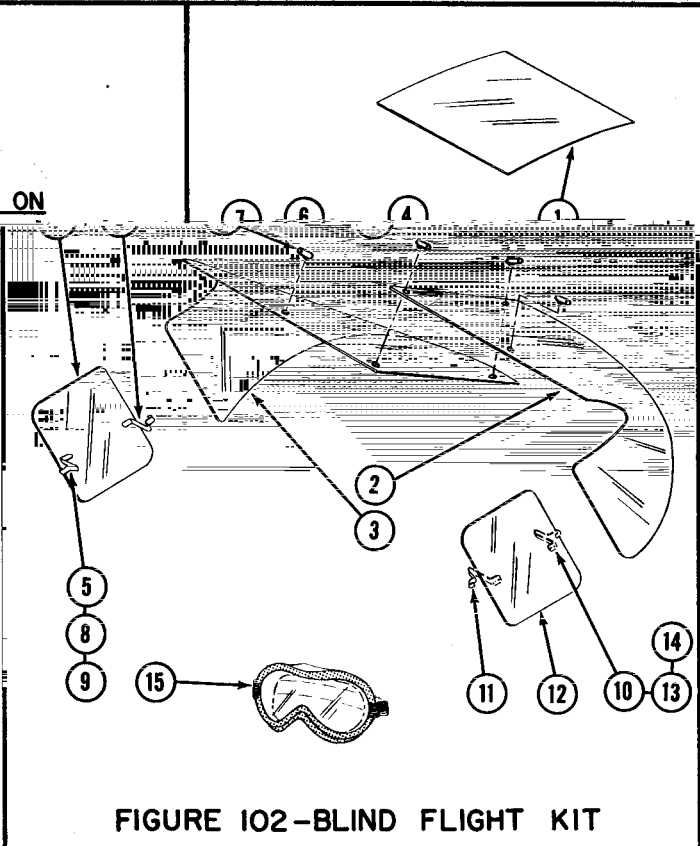
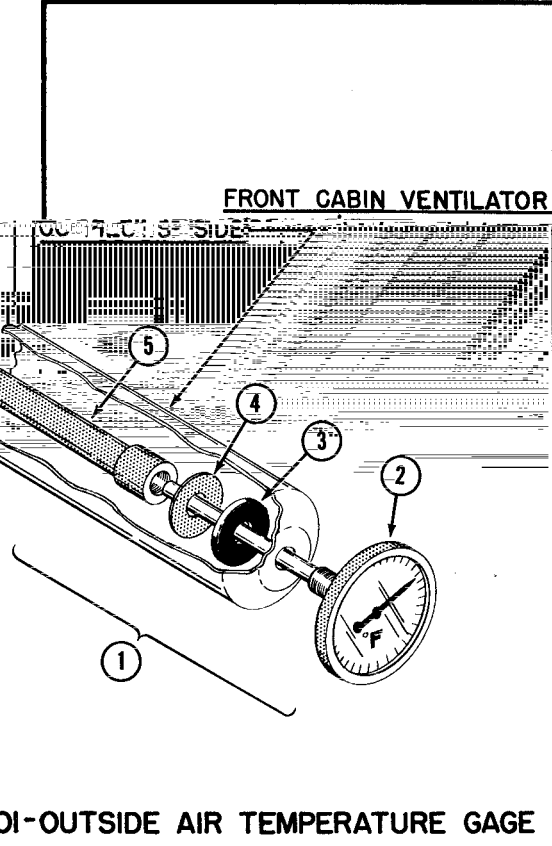
	52-3-551	Installation Kit - Abrasion boots (Cessna 0332136)	1	1
100-1	0332136-2	Abrasion Boot - (47 inches long)	2	2
	A68B	Cement - (Attach boot) (1/2 pint)	1	1
	Vulcalock	Primer - (Attach boot) (1/2 pint)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG



ILLUSTRATED PARTS CATALOG

OPTIONAL EQUIPMENT - OUTSIDE AIR TEMPERATURE GAGE

1	2	3	4	5	6	PART NAME	UNITS REQUIRED ON MODELS	
							190	195
						Gage Assembly - Outside air temperature	1	1
						Gage - (Not available as separate item)	1	1
						Rubber Gasket - (Not available as separate item)	1	1
						Washer - (Not available as separate item)	1	1
						Shield - (Not available as separate item)	1	1

FIGURE 101

FIGURE AND REF. NO.	PART NUMBER
101-1	0411078-1
-2	
-3	
-4	
-5	

OPTIONAL EQUIPMENT - BLIND FLIGHT KIT

FIGURE 102

Installation Kit - Blind flight (Cessna 0300006-1)	1	1	52-3-539
Cover Assembly - Right windshield	1	1	0300006-1
Cover Assembly - Left windshield	1	1	0300006-1
Plate Assembly - Windshield attachment	1	1	0300006-1
Cover Assembly - Left	1	1	0300006-1
1	1		
1	1		
4	4		
4	4		
1	1		
1	1		
1	1		
4	4		
4	4		
1	1		
-6	0300006-8	Bracket - Side window	
-7	0300006-9	Cover - Side window	
-8	PK76XZ-6-4	Screw - (Attach bracket)	
-9	NAS446-3	Nut - (Attach bracket)	
	0300006-8	Cover Assembly - Right	
-10	0300006-3	Bracket - Side window	
-11	0300006-5	Bracket - Side window	
-12	0300006-9	Cover - Side window	
-13	PK76XZ-6-4	Screw - (Attach bracket)	
-14	NAS446-3	Nut - (Attach bracket)	
-15	0511061	Goggles - Blind flying	

FIGURE 103

OPTIONAL EQUIPMENT - UNIVERSAL JACK POINT

1	1
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103-1	100004-79	Jack Point - Universal
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FIGURE 104

OPTIONAL EQUIPMENT - SUN VISOR

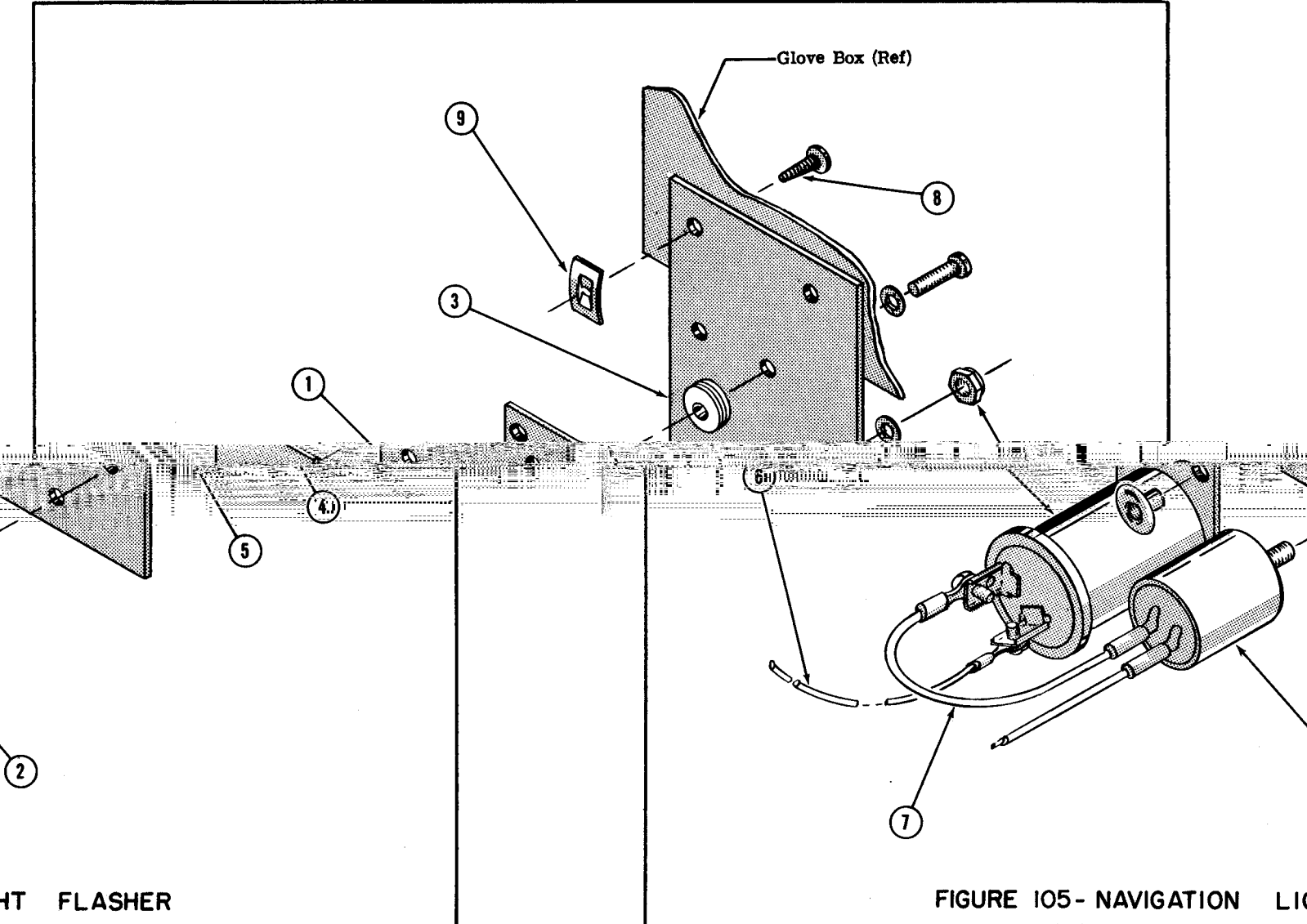
1	1	52-3-595	Installation Kit - Sun visor (Cessna 0511058)	
1	1	0511058-4	Visor - Sun	
-3	AN960-10L	Washer - (Attach sun visor)	1	1
				</

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG



HT FLASHER

FIGURE 105- NAVIGATION LI

UNITS REQUIRED
ON MODELS

FIGURE
AND

PART NUMBER

PART NAME

ILLUSTRATED PARTS CATALOG

NUMERICAL INDEX

ARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0311280	39-58		21-73	0311178-33	37-24	0311238-1	19-2
0311281-3	91-29	0311123	21-69	0311179	37-34	0311239	19-3
	38-25	-3	21-69	0311182	37-9	0311240	67-1
-4	39-59	-4	21-70	-1	37-13		21-1
0311282	39-60	0311124	20-24		37-48	-14	21-1
0311283	39-61	0311125	20-22	-4	37-14	-17	67-44
0311284	91-28	0311130-5	22-20	-14	37-10	-20	21-6
	38-26	-6	22-6	0311183-2	37-46	-22	21-1
	39-62	-7	22-8	-6	37-47	0311241	21-7
0311285	39-57	0311140-4	21-48	-10	37-28	-3	21-7
0311286	20-35	-7	20-13	-14	37-8	0311242	21-2
0311287	22-10	-23	20-15	-18	37-51	-3	21-2
0311288-1	21-59		64-9	0311186	42-2	-4	21-5
-3	21-61	-24	20-16	0311188	37-43	-7	21-3
-4	21-60		64-11	0311189	37-65	-8	21-4
	21-62	-25	20-17	0311190	91-35	-9	21-4
0311289	20-66		64-10	0311194	20-58	0311243	21-65
0311290	20-65	-50	20-1	0311197	21-71	-1	21-66
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