

# CESSNA AIRCRAFT COMPANY

Wichita, Kansas

THIS CATALOG SUPERSEDES

ALL

190 & 195 CATALOGS

November 1954

Price \$3.00

This page intentionally left blank.

# 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.

# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>A</b>		<b>B</b>	
Abrasion Boot . . . . .	169	Control Column Catch . . . . .	115
Actuator		Control Lock . . . . .	131
Elevator Tab . . . . .	26, 27	Dome Light . . . . .	37
Rudder Trim . . . . .	125, 167	Door Hinge - Lower . . . . .	41
Stall Warning . . . . .	5	Door Stop . . . . .	40
Aileron		Elevator Bellcrank . . . . .	34
Assembly - Left . . . . .	13	Flap Center . . . . .	24
Assembly - Right . . . . .	23	Flap Control - Left . . . . .	11
Bellcrank Assembly . . . . .	13, 23	Flap Control - Right . . . . .	21
Control System . . . . .	127	Flap Control Pulley . . . . .	24
Push-Pull Rod . . . . .	13, 23	Flare . . . . .	157
Airplane Assembly . . . . .	3	Fuel Selector Valve . . . . .	40
Airspeed Indicator . . . . .	77	Mixture Control Support . . . . .	83, 97
Altimeter . . . . .	77	Oil Temperature Regulator . . . . .	85
Ammeter . . . . .	77	Rudder Bellcrank . . . . .	43
Arm		Rudder Pedal Return Spring . . . . .	39
Dual Control . . . . .	164	Tailwheel Steering Cables . . . . .	45
Flap Control . . . . .	24, 24A	<b>Brake</b>	
Throw Over Control . . . . .	115	Assembly - Main Landing Gear . . . . .	49, 53
Ash Receiver . . . . .	63, 67	Lines . . . . .	61
Axle - Landing Gear . . . . .	49	Master Cylinder . . . . .	58, 59, 60
		Pedal . . . . .	57
<b>B</b>		<b>Bulb</b>	
Back Assembly - Rear Seat . . . . .	71	Tail Light . . . . .	45
Baffle - Intercylinder . . . . .	89, 101	Wing Position Light . . . . .	5, 15
Baggage Door . . . . .	64	Bulkhead Assembly - Fuel Cell . . . . .	7, 17
Ball Joint - Control . . . . .	81, 95	Bulkhead - Landing Gear . . . . .	40
Bar - Control Lock . . . . .	131	Button - Baggage Door Latch . . . . .	34
Bar - Rudder Pedals . . . . .	57		
Barrel		<b>C</b>	
Assembly - Shock Strut Inner . . . . .	55	Cabin Air Vent	
Assembly - Shock Strut Outer . . . . .	55	Control . . . . .	78
Battery . . . . .	133	Cup Assembly . . . . .	78
Battery Box . . . . .	33, 133	Door Assembly . . . . .	78
Bellcrank		Outlet Assembly . . . . .	78
Aileron - Left . . . . .	13	Cabin Door . . . . .	67
Aileron - Right . . . . .	23	Cabin Heater . . . . .	107, 109
Elevator Control . . . . .	119	Cabin Trim & Upholstery . . . . .	63
Rudder Control . . . . .	123	Cabin Ventilator . . . . .	78
Rudder Trim Control . . . . .	127	<b>Cable</b>	
Rudder - Seaplane . . . . .	153	Aileron Control . . . . .	127
Water Rudder . . . . .	153	Elevator Control . . . . .	119
Belt - Safety . . . . .	69, 71	Elevator Tab Control . . . . .	121
Blast Tube Generator . . . . .	83, 162	Flap Control . . . . .	129
Boot - Abrasion . . . . .	169	Parking Brake . . . . .	39
Box		Rudder Control . . . . .	123
Battery . . . . .	133	Rudder Trim Control . . . . .	125, 167
Circuit Breaker . . . . .	73, 133	Stainless Steel - Floatplane . . . . .	153
Glove Compartment . . . . .	73, 75	Step . . . . .	37
Bracket		Camera Installation . . . . .	155
Aileron Bellcrank - Left . . . . .	11	Cap - Fuel Tank . . . . .	5, 15
Aileron Bellcrank - Right . . . . .	21	Carburetor Heat Control . . . . .	73
Aileron Control Pulley - Left . . . . .	11	Cap and Stick-Oil Tank . . . . .	113
Aileron Control Pulley - Right . . . . .	21	Card - Compass . . . . .	74
Aileron Hinge - Left . . . . .	11	Carpet - Floor . . . . .	64
Aileron Hinge - Right . . . . .	21	Chain	
Aileron Pulley . . . . .	37	Aileron Control . . . . .	116, 127
Baggage Door Hinge . . . . .	65	Dual Control . . . . .	164
Brake Cylinder . . . . .	57	Elevator Tab . . . . .	121

# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>C</b>		<b>E</b>	
Rudder Trim . . . . .	125	Tab Control . . . . .	121
Cigar Lighter . . . . .	73	Tip . . . . .	30, 31A
Circuit Breaker . . . . .	73, 133	Emergency Exit . . . . .	159
Clock . . . . .	77	Engine	
Coil - Ignition . . . . .	83, 97	Assembly . . . . .	83, 97
Compass . . . . .	77	Baffles . . . . .	89, 101
Compass Card . . . . .	74	Cowl . . . . .	91, 105
Compass Card Holder . . . . .	74	Exhaust Stack . . . . .	91, 103
Contact - Solenoid . . . . .	133	Installation . . . . .	81, 95
Control System		Mount . . . . .	86, 97
Aileron . . . . .	127	Service Support . . . . .	81, 95
Elevator . . . . .	119	Escutcheon - Door Handle	
Elevator Tab . . . . .	121	Door Handle . . . . .	67
Flap . . . . .	129	Window Handle . . . . .	63
Parking Brake . . . . .	131	Exhaust Stack Installation . . . . .	91, 103
Rudder . . . . .	123	Eyebolt - Wing Tie Down . . . . .	7, 17
Rudder Trim . . . . .	125, 167		
Voltage Regulator . . . . .	95	<b>F</b>	
Continental Engine . . . . .	95, 97	Fairing	
Cover		Empennage . . . . .	3
Control Arm . . . . .	115	Wheel . . . . .	165
Control Column . . . . .	115	Windshield . . . . .	47
Dual Control Arm . . . . .	164	Fillet	
Inboard Aileron Hinge . . . . .	13, 23	Baggage Door . . . . .	36
Oil Tank . . . . .	64	Cabin Door . . . . .	36
Seat . . . . .	168	Wing Trailing Edge . . . . .	34
Shock Panel . . . . .	74	Fin	
Wing Root Gap . . . . .	5, 15	Assembly Dorsal . . . . .	25
Covers - Seat . . . . .	168	Assembly Vertical . . . . .	25
Cowl - Engine . . . . .	91, 105	Insignia . . . . .	25
Crank - Pilot Window . . . . .	64	Seaplane . . . . .	153
Cross - Wind Landing Gear . . . . .	51	Spar . . . . .	25
		Fireproof Grommets . . . . .	44
		Firewall Assembly . . . . .	37
		Flap	
<b>D</b>		Assembly . . . . .	24
Deflector - Heater . . . . .	107, 109	Control System . . . . .	129
Directional Indicator . . . . .	77	Hinge . . . . .	24
Door Assembly		Motor . . . . .	129
Baggage . . . . .	64	Flare Installation . . . . .	157
Cabin . . . . .	66	Flasher - Navigation Light . . . . .	172
Circuit Breaker . . . . .	73	Floatplane Fittings . . . . .	153
Emergency Exit . . . . .	159	Floorboard . . . . .	34, 39
Glove Compartment . . . . .	73	Front Seat . . . . .	69
Oil Tank Access . . . . .	37	Fuel	
Dual Brakes . . . . .	57	Cap Assembly . . . . .	5
Dynafoal Engine Mount . . . . .	86	Liquidometer . . . . .	5
		Selector Valve . . . . .	110
		Strainer . . . . .	111
		System . . . . .	110
		Tank . . . . .	5, 15
		Fuselage	
		Assembly . . . . .	33
		Aft Section . . . . .	43
		Forward Section . . . . .	34
		Front Section . . . . .	37
		Wiring Installation . . . . .	133
<b>E</b>			
Electrical Wiring Diagram . . . . .	135		
Electrical Wiring - Fuselage . . . . .	133		
Elevator			
Assembly - Left . . . . .	30, 31A		
Assembly - Right . . . . .	31, 31B		
Control System . . . . .	119		
Hinge . . . . .	31, 31B		
Tab . . . . .	31, 31B		
Tab Actuator . . . . .	26		

# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>G</b>		<b>I</b>	
Gage		Stall Warning . . . . .	77
Carburetor Air Temperature . . . . .	77	Turn & Bank . . . . .	77
Cylinder Head Temperature . . . . .	77	Vertical Speed . . . . .	77
Fuel Pressure . . . . .	77	Insignia . . . . .	25
Manifold Pressure . . . . .	77	Inspection Plate - Wing . . . . .	5, 15
Oil Pressure . . . . .	77	Instrument	
Oil Temperature . . . . .	77	Airspeed Indicator . . . . .	77
Outside Air Temperature . . . . .	171	Altimeter . . . . .	77
Generator Blast Tube . . . . .	97	Ammeter . . . . .	77, 146
Generator Installation . . . . .	97, 162	Carburetor Air Temperature . . . . .	77
Glove Compartment . . . . .	75	Clock . . . . .	77
Goggles - Blind Flight . . . . .	171	Compass . . . . .	77
Governor - Propeller . . . . .	88, 99	Cylinder Head Temperature . . . . .	77
Grommets - Firewall . . . . .	44	Directional Indicator . . . . .	77
Ground Service Plug . . . . .	163	Manifold Pressure . . . . .	77
Gyro Installation . . . . .	143, 145	Oil Pressure . . . . .	77
		Oil Temperature . . . . .	77
<b>H</b>		Panel . . . . .	77
Handle		Tachometer . . . . .	77
Assist . . . . .	83	Turn & Bank . . . . .	77
Door . . . . .	67	Vertical Speed . . . . .	77
Emergency Door . . . . .	159		
Front Seat Adjustment . . . . .	69	<b>J</b>	
Fuel Selector Valve . . . . .	111	Jack	
Switch . . . . .	73	Point - Universal . . . . .	171
Head - Pitot . . . . .	117	Jamb	
Heater - Cabin . . . . .	107, 109	Baggage Door . . . . .	36
Hinge		Cabin Door . . . . .	36
Aileron . . . . .	13, 23		
Baggage Door . . . . .	65	<b>K</b>	
Cabin Door . . . . .	39	Kit	
Elevator . . . . .	30, 31B	Abrasion Boots . . . . .	169
Elevator Tab . . . . .	31, 31B	Ammeter . . . . .	146
Fin . . . . .	25	Auxiliary Baggage Compartment . . . . .	150, 151
Flap . . . . .	24	Auxiliary Fin . . . . .	153
Glove Compartment Door . . . . .	75	Blind Flight . . . . .	171
Rudder . . . . .	29	Camera Provisions . . . . .	155
Stabilizer . . . . .	27	Cargo Tie-Down . . . . .	149
Hoisting Lugs . . . . .	169	Dual Control . . . . .	164
Hook - Headphone . . . . .	63	Emergency Exit . . . . .	159
Horn - Elevator Tab . . . . .	31, 31B	Flare Installation . . . . .	157
Hose - Cabin Air Vent . . . . .	9, 19	Floatplane Fittings . . . . .	152
Hub Assembly - Propeller . . . . .	79	Generator Installation . . . . .	162
Hub Assembly - Tailwheel . . . . .	56	Ground Service Plug . . . . .	163
		Hoisting Lugs . . . . .	169
<b>I</b>		Muff Covers . . . . .	140
Ignition Coil . . . . .	97	Oil Dilution System . . . . .	161
Capacitor . . . . .	83, 97	Outside Air Temperature Gage . . . . .	171
Clamp Assembly . . . . .	83, 97	Rear Seat Back . . . . .	149
Ignition Switch . . . . .	73	Rudder Trim System . . . . .	167
Indicator		Seat Covers . . . . .	168
Airspeed . . . . .	77	Stainless Steel Cables . . . . .	153
Fuel Quantity . . . . .	77	Stall Warning Indicator . . . . .	147
Directional . . . . .	77	Stretcher Installation . . . . .	149
Flap . . . . .	77	Sun Visor . . . . .	171

# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>K</b>		<b>N</b>	
Universal Jack Point . . . . .	171	Navigation Light Flasher . . . . .	172
Vacuum Gyro . . . . .	143, 145	Navigation Light - Left Wing . . . . .	5
Wheel Fairing . . . . .	165	Navigation Light - Right Wing . . . . .	15
Winterization . . . . .	140, 141	Navigation Light - Tail . . . . .	45
Knob		Nut - Wheel Fairing . . . . .	165
Aileron Trim . . . . .	115		
Throwover Control Release . . . . .	115	<b>O</b>	
<b>L</b>		Oil Pressure Gage . . . . .	77
Landing Gear		Oil System . . . . .	113
Assembly . . . . .	49	Oil Tank . . . . .	37, 113
Bulkhead . . . . .	40	Oil Temperature Gage . . . . .	77
Installation . . . . .	49	Oil Temperature Regulator . . . . .	85
Installation - Crosswind . . . . .	51	Outlet Assembly - Cabin Air Vent . . . . .	78
Spring . . . . .	49, 51	Outside Air Temperature Gage . . . . .	171
Landing Light . . . . .	7	<b>P</b>	
Latch Assembly		Panel Assembly	
Baggage Door . . . . .	65	Circuit Breaker . . . . .	77, 113
Cabin Door . . . . .	67	Instrument . . . . .	77
Emergency Door . . . . .	159	Shock Mounted . . . . .	74, 77
Leading Edge Assembly - Left Wing . . . . .	9	Stationary . . . . .	171
Leading Edge Assembly - Right Wing . . . . .	19	Parking Brake . . . . .	131
Level - Control Lock . . . . .	131	Pedal - Brake & Rudder . . . . .	57
Light		Pitot Seat . . . . .	69
Fluorescent . . . . .	47	Pitot System . . . . .	117
Landing . . . . .	7	Placard	
Tail . . . . .	45	Aileron Trim . . . . .	115
Wing Position Left . . . . .	5	Control Lock . . . . .	64
Wing Position Right . . . . .	15	Elevator Tab . . . . .	115
Lighter - Cigar . . . . .	73	Fuel Drain Valve . . . . .	64
Lines		Oil Dilution . . . . .	161
Brake . . . . .	61	Rudder Trim . . . . .	115
Pitot . . . . .	117	Throwover Release . . . . .	115
Lining - Brake . . . . .	49, 53	Plate	
Link		Cabin Door Latch Strike . . . . .	36
Dual Brakes . . . . .	57	Inspection . . . . .	5, 15, 34
Rudder Control . . . . .	123	Plexiglas - Decorative . . . . .	73
Spring Connectors . . . . .	71	Portable Stretcher . . . . .	149
Turnbuckle Connectors . . . . .	123	Pressure Gage - Oil . . . . .	77
Liquidometer - Fuel Tank Unit . . . . .	5, 15	Primer - Engine . . . . .	73
Lock - Control . . . . .	131	Propeller	
Lock - Door . . . . .	67	Governor . . . . .	88, 99
Lug		Hamilton Standard . . . . .	79
Cowl Mount . . . . .	93, 105	Hub Assembly . . . . .	3, 79
Engine Mount . . . . .	44	Pylon - Elevator . . . . .	31
Hoisting . . . . .	169	Pylon - Rudder . . . . .	29
Towing . . . . .	51	<b>R</b>	
<b>M</b>		Rear Seat Assembly . . . . .	71
Mast - Pitot Head . . . . .	117	Regulator - Oil Temperature . . . . .	85
Master Cylinder - Brake . . . . .	57, 58, 59, 60	Roller - Seat . . . . .	69
Mixture Control . . . . .	73		
Mooring Lug - Tie Down . . . . .	7, 17		
Mount			
Engine . . . . .	44		
Instrument Panel Shock . . . . .	79		
Navigation Light . . . . .	12, 22		
Muff - Carburetor Heat . . . . .	91, 103		



# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>R</b>		<b>S</b>	
Rudder		Stop	
Assembly	29	Aileron Bellcrank	11, 21
Control System	123	Cabin Door	67
Hinge	29	Elevator Control	34
Pedal	57	Elevator Tab Control	121
Tip	29	Strainer	
Trim Control System	125, 167	Fuel	111
		Fuel Tank	111
		Oil Tank	113
<b>S</b>		Strap	
Safety Belt	69, 71	Battery Ground	133
Scuff Pad - Control Column	64, 167	Engine Ground	83, 97
Seaplane Fittings	152	Fuel Tank Ground	5, 15
Seat		Shock Panel Ground	74
Pitot & Co-Pilot	69	Stretcher - Portable	149
Rear	71	Structure	
Seat Covers	168	Forward Fuselage	34
Section Assembly - Fuselage Aft	43	Front Section	37
Segment - Exhaust Stack	91, 103	Left Wing	6
Segment - Muff	91, 103	Right Wing	17
Shelf - Baggage	64	Support	
Shim		Engine Service	81, 95
Fin Attachment	25	Landing Gear	40
Landing Gear	49, 51	Stretcher	149
Stabilizer Attachment	27	Switch	
Solenoid - Starter	73, 133	Cabin Heater	73
Spar		Flare	157
Elevator Front	30	Handle	73
Fin	25	Ignition	73
Fuselage - Front	36	Landing Light	73
Fuselage - Rear	36	Master	73
Rudder	29	Panel	73
Stabilizer Front	27	Starter	73
Stabilizer Rear	27		
Wing Front	9, 19	<b>T</b>	
Wing Rear	11, 21	Tab	
Spring		Actuator	26
Control Lock	131	Elevator	31
Flap Return	24	Rudder	29
Landing Gear	49, 51	Tachometer	77
Retractable Step	37	Tail	
Rudder Control	123	Gear Installation	54
Rudder Pedal Return	123	Light	45
Tailwheel Steering	123	Wheel Assembly	56
Sprocket		Tank Assembly	
Control Column	115	Fuel	5, 15
Elevator Tab Control	116	Oil	113
Dual Control Chain Idler	164	Oil Dilution	161
Rudder Trim Control	115	Temperature Gage - Carburetor Air	77
Stabilizer Assembly	26	Temperature Gage - Oil	77
Stall Warning Actuator	5	Temperature Gage - Outside Air	171
Stall Warning Indicator	77	Thermocouple	98
Starter	83, 97	Thermostat - Heater	107, 109
Starter Control	73	Throttle Control	34
Starter Solenoid	73, 133	Tip	
Stationary Panel	72	Elevator	30
Step - Floatplane	153	Rudder	29
Step - Retractable	37	Wing	12, 22
Stinger Assembly	45		

# ILLUSTRATED PARTS CATALOG

## ALPHABETICAL INDEX

PART NAME	PAGE	PART NAME	PAGE
<b>T</b>		<b>W</b>	
Tire . . . . .	49, 52	Wing	
Track Assembly - Sunshade . . . . .	47	Assembly - Complete Left . . . . .	5
Trailing Edge Assembly - Wing . . . . .	11, 21	Assembly - Complete Right . . . . .	15
Tube		Leading Edge Left . . . . .	9
Aileron Push-Pull . . . . .	13, 23	Leading Edge - Right . . . . .	19
Control Column . . . . .	115	Position Light - Left . . . . .	5
Elevator Control . . . . .	34, 119	Position Light - Right . . . . .	15
Elevator Tab Control . . . . .	121	Structure Assembly - Left . . . . .	6
Rudder Control . . . . .	123	Structure Assembly - Right . . . . .	17
Turn & Brank Indicator . . . . .	77	Tip Assembly - Left . . . . .	12
		Tip Assembly - Right . . . . .	22
		Trailing Edge - Left . . . . .	11
		Trailing Edge - Right . . . . .	21
		Wing Unit - Stall Warning . . . . .	5
		Winterization Equipment . . . . .	140, 141
		Wiring	
		Diagram . . . . .	135
		Fuselage . . . . .	133
<b>U</b>		<b>Y</b>	
Upholstery		Yoke - Push-Pull Tube . . . . .	119
Baggage Door . . . . .	64	Yoke - Tailwheel . . . . .	55
Cabin Door . . . . .	66		
Installation . . . . .	63		
<b>V</b>			
Vacuum Pump . . . . .	143, 145		
Value			
Carburetor Hot & Cold Air . . . . .	87, 99		
Fuel Drain . . . . .	111		
Fuel Line Drain . . . . .	111		
Fuel Selector . . . . .	110		
Oil Dilution . . . . .	161		
Suction Relief . . . . .	143, 145		
Vent - Fuel Tank . . . . .	111		
Ventilators . . . . .	78		
Visor - Sun . . . . .	47, 171		
Voltage Control . . . . .	95, 162		
<b>W</b>			
Warning Unit - Stall . . . . .	77		
Weather Strip - Door . . . . .	65, 67		
Wedge - Landing Gear . . . . .	49, 51		
Wheel			
Assembly . . . . .	49		
Control . . . . .	115, 164		
Cross - Wind . . . . .	52		
Fairing . . . . .	165		
Tab Control . . . . .	116		
Tail . . . . .	56		
Windows - Cabin . . . . .	33		
Windshield . . . . .	47		

## 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

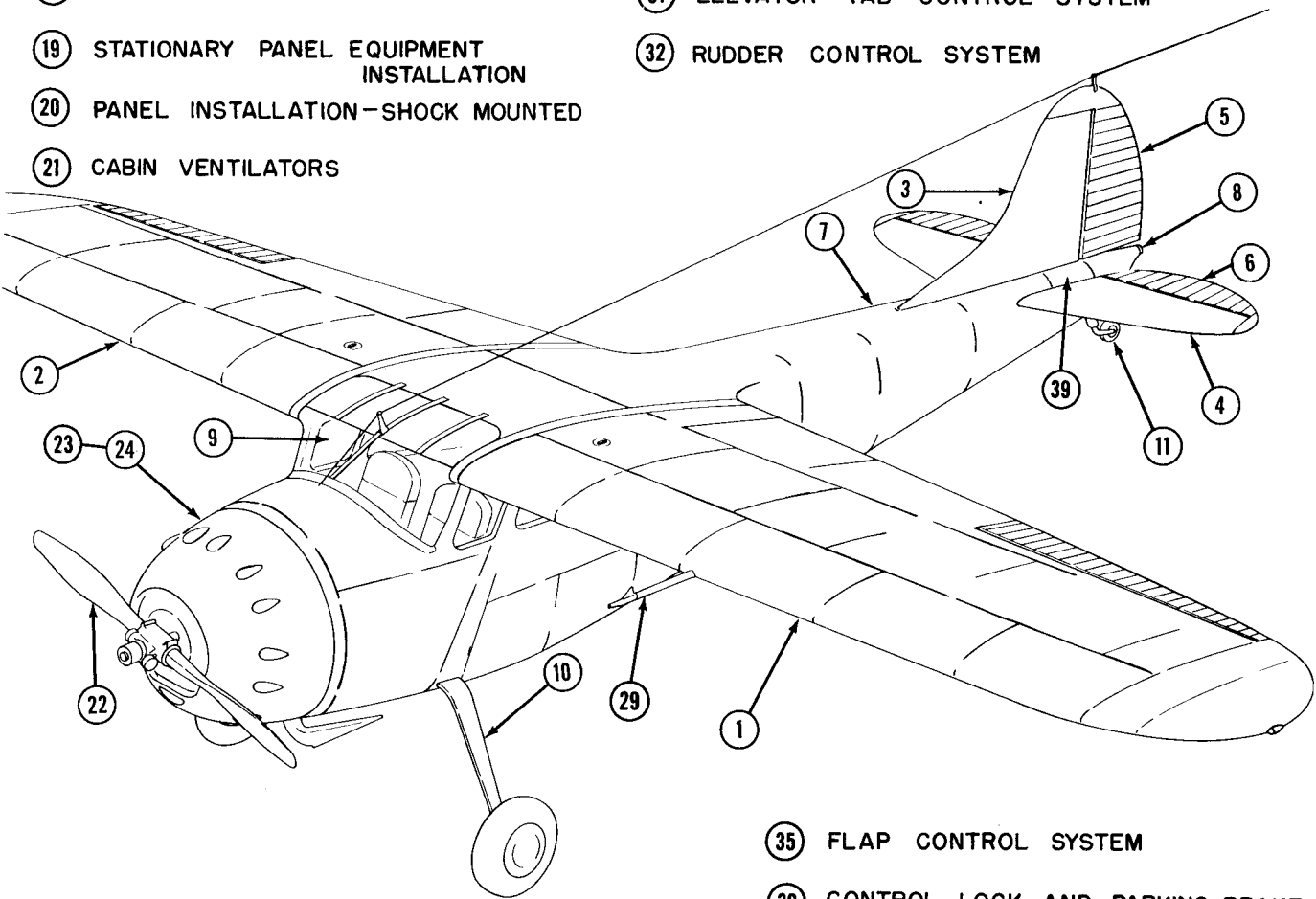
This page intentionally left blank.

**STANDARD EQUIPMENT SECTION**



## ILLUSTRATED PARTS CATALOG

- |  |                               |
|--|-------------------------------|
| ⑫ BRAKE AND RUDDER PEDAL INSTALLATION        | ⑮ CABIN HEATER INSTALLATION   |
| ⑬ BRAKE LINES INSTALLATION                   | ⑯ FUEL SYSTEM                 |
| ⑭ UPHOLSTERY INSTALLATION                    | ⑰ OIL SYSTEM                  |
| ⑮ BAGGAGE DOOR ASSEMBLY                      | ⑱ CONTROL COLUMN              |
| ⑯ CABIN DOOR ASSEMBLY                        | ⑲ PITOT SYSTEM                |
| ⑰ PILOT AND CO-PILOT'S SEAT                  | ⑳ ELEVATOR CONTROL SYSTEM     |
| ⑱ REAR SEAT ASSEMBLY                         | ㉑ ELEVATOR TAB CONTROL SYSTEM |
| ⑲ STATIONARY PANEL EQUIPMENT<br>INSTALLATION | ㉒ RUDDER CONTROL SYSTEM       |
| ⑳ PANEL INSTALLATION—SHOCK MOUNTED           |                               |
| ㉑ CABIN VENTILATORS                          |                               |



- |                              |                                  |
|------------------------------|----------------------------------|
| ⑳ RUDDER TRIM CONTROL SYSTEM | ㉓ FLAP CONTROL SYSTEM            |
| ㉑ AILERON CONTROL SYSTEM     | ㉔ CONTROL LOCK AND PARKING BRAKE |
|                              | ㉕ FUSFLAGE ELECTRIC WIRING       |
|                              | ㉖ ELECTRICAL WIRING DIAGRAM      |

FIGURE I—AIRPLANE ASSEMBLY



ILLUSTRATED PARTS CATALOG

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

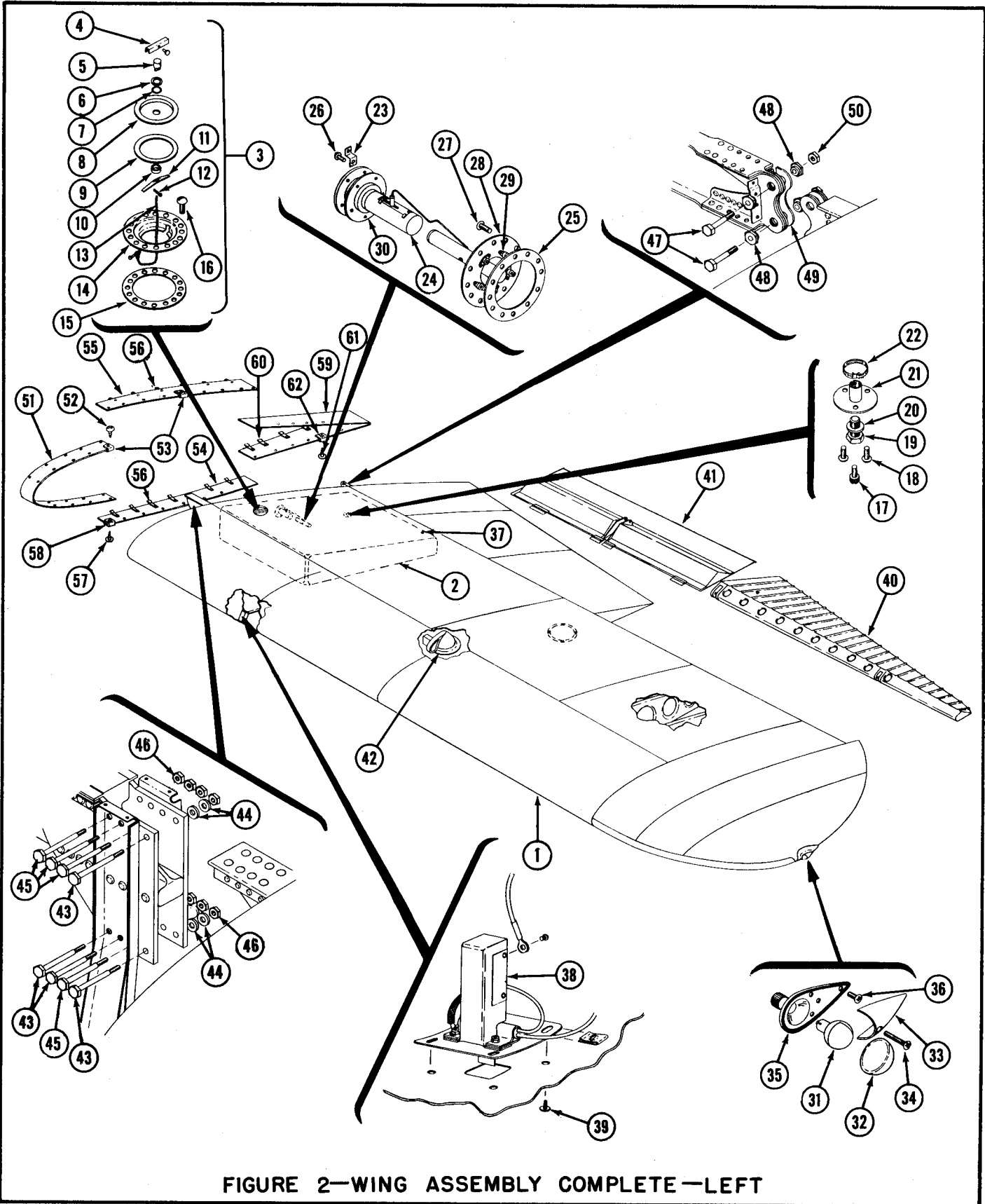


FIGURE 2—WING ASSEMBLY COMPLETE—LEFT





ILLUSTRATED PARTS CATALOG

FIGURE 2

WING ASSEMBLY - COMPLETE LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	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	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

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 - Hi-shear (2 top and 4 bottom)	6	6
	NAS178-8-8						Rivet - Hi-shear (2 top and 2 bottom)	4	4
	NAS178-8-9						Rivet - Hi-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

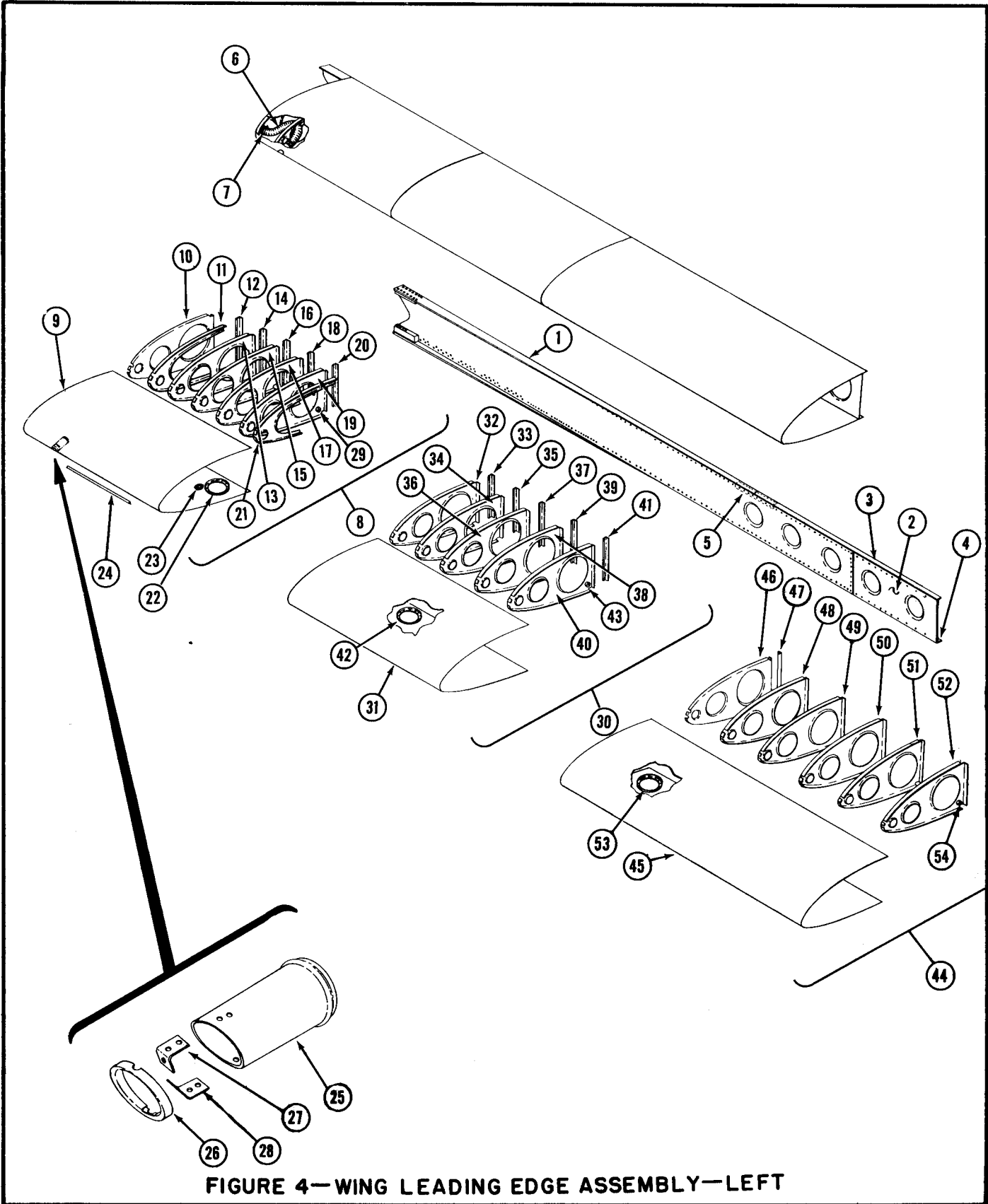


FIGURE 4—WING LEADING EDGE ASSEMBLY—LEFT

ILLUSTRATED PARTS CATALOG

FIGURE 4

Leading Edge Assembly - Left Wing

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
4-1	0322100	Leading Edge Assembly - Left wing (see figure 3 for NHA) (ser 7003 - 16083)	Ref	Ref
	0322300	Spar Assembly - Wing front left (ser 7003 thru 16083)	1	1
	0322100-18	Leading Edge Assembly - Left wing (see fig 3 for NHA) (ser 16084 & on)	1	1
	0322300-2	Spar Assembly - Wing front left (ser 16084 & on)	1	1
-2	0322329	Web - Outboard	1	1
-3	0322307	Cap Strip - Upper outboard	1	1
-4	0322309	Cap Strip - Lower outboard	1	1
-5	0322327	Splice Assembly - Upper (Sta. 134.312)	1	1
-6	0450320-5	Hose - Cabin air	1	1
-7	NAS397-32P	Clamp - (Tinnerman A3499-32-4)	2	2
	0322100-15	Leading Edge Assembly - Left wing (Sta. 28.875 to Sta. 181.0)	1	1
-8	0322100-12	Segment Assembly - Leading Edge inboard (Sta. 28.875 to 73.75)	1	1
-9	0322100-8	Skin - Leading edge inboard (Sta. 28.875 to 73.75)	1	1
	0322100-21	Skin - Leading edge inboard (Sta. 28.875 to 73.75) (ser 7003 thru 16083)		1
		(ser 16084 & on)		
-10	0322131	Rib Assembly - Wing leading edge left (Sta. 28.875)	1	1
-11	0322142	Rib - Leading edge (Sta. 35.0)	1	1
-12	0322330	Angle - Front spar stiffener (Sta. 35.0)	1	1
-13	0322108	Rib - Wing leading edge (Sta. 41.0)	1	1
-14	0322126-2	Angle - Front spar stiffener (Sta. 41.0)	1	1
-15	0322109	Rib - Wing leading edge (Sta. 49.0)	1	1
-16	0322126-3	Angle - Front spar stiffener (Sta. 49.0)	1	1
-17	0322110	Rib - Wing leading edge (Sta. 57.0)	1	1
-18	0322126-4	Angle - Front spar stiffener (Sta. 57.0)	1	1
-19	0322111-3	Rib - Wing leading edge (Sta. 65.0)	1	1
-20	0322126-5	Angle - Front spar stiffener (Sta. 65.0)	1	1
-21	0322143	Former - Leading edge (Sta. 69.0)	1	1
-22	0322127	Stiffener - Access hole	1	1
-23	0721101-4	Connector Assembly (ser 16084 & on)	1	1
-24	0322144-2	Strip - Stalling	1	1
-25	0322100-10	Tube - Cabin air intake	1	1
-26	0322100-11	Seal - Cabin air intake	1	1
-27	0322100-9	Clip - Cabin air intake	1	1
-28	0322100-16	Clip - Cabin air intake	1	1
-29	AN230A3	Grommet - Plain	5	5
-30	0322100-13	Segment Assembly - Leading edge center (Sta. 73.75 to 119.0)	1	1
-31	0322100-6	Skin - Leading edge - Center (Sta. 73.75 to 119.0)	1	1
	0322100-20	Skin - Leading edge - Center (Sta. 73.75 to 119.0) (ser 7003 thru 16083)		1
		(ser 16084 & on)		
-32	0322112	Rib - Wing leading edge (Sta. 73.75) (ser 7003 thru 16083)	1	1
-33	0322126-6	Angle - Front spar stiffener (Sta. 73.75)	1	1
-34	0322113	Rib - Wing leading edge (Sta. 81.0)	1	1
-35	0322126-7	Angle - Front spar stiffener (Sta. 81.0)	1	1
-36	0322114	Rib - Wing leading edge (Sta. 89.0) (ser 7003 thru 16083)	1	1
	0322114-3	Rib - Wing leading edge (Sta. 89.0) (ser 16084 & on)		1
-37	0322126-8	Angle - Front spar stiffener (Sta. 89.0)	1	1
-38	0322115	Rib - Wing leading edge (Sta. 99.0)	1	1
-39	0322126-9	Angle - Front spar stiffener (Sta. 99.0)	1	1
-40	0322116	Rib - Wing leading edge (Sta. 109.0)	1	1
-41	0322126-9	Angle - Front spar stiffener (Sta. 109.0)	1	1
-42	0322127	Stiffener - Access hole	1	1
-43	AN230A3	Grommet - Plain	4	4
-44	0322100-14	Segment Assembly - Leading edge outboard (Sta. 119.0 to 181.0)	1	1
-45	0322100-4	Skin - Leading edge - Outboard (Sta. 110.9 to 181.0)	1	1
-46	0322117	Rib - Wing leading edge (Sta. 119.0)	1	1
-47	0322126-10	Angle - Front spar stiffener (Sta. 119.0)	1	1
-48	0322118	Rib - Wing leading edge (Sta. 129.0)	1	1
-49	0322119	Rib - Wing leading edge (Sta. 139.0)	1	1
-50	0322120	Rib - Wing leading edge (Sta. 149.5)	1	1
-51	0322121	Rib - Wing leading edge (Sta. 160.0)	1	1
-52	0322122	Rib - Wing leading edge (Sta. 170.5)	1	1
-53	0322127	Stiffener - Access hole	1	1
-54	AN230A10	Grommet - Plain	6	6

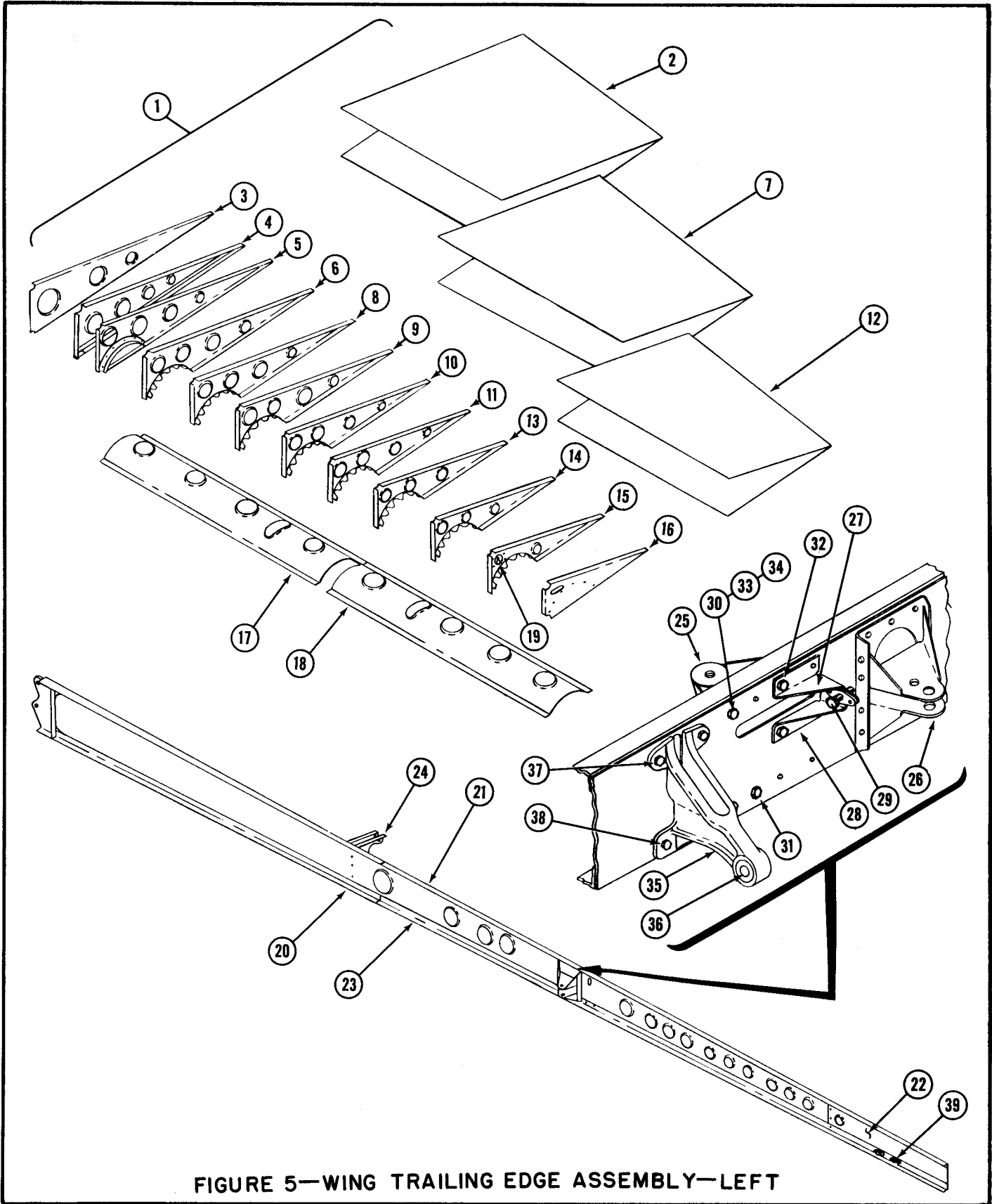


FIGURE 5—WING TRAILING EDGE ASSEMBLY—LEFT



ILLUSTRATED PARTS CATALOG

FIGURE 5

TRAILING EDGE ASSEMBLY - LEFT WING

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0322200	Trailing Edge Assembly - Left wing (see figure 3 for NHA)						Ref	Ref
5-1	0322200-20	Skin Assembly - Left wing trailing edge						1	1
	0322200-21	Skin Assembly - Left inboard						1	1
-2	0322200-3	Skin - Left trailing edge (Sta. 28.875 to 57.0)						1	1
-3	0322206	Rib - Wing trailing edge (Sta. 28.875)						1	1
-4	0322550	Rib - Wing trailing edge (Sta. 35.625)						1	1
-5	0322218	Rib Assembly - Wing trailing edge (Sta. 41.0)						1	1
-6	0322208	Rib - Wing trailing edge (Sta. 49.0)						1	1
	0322200-22	Skin Assembly - Left center						1	1
-7	0322200-4	Skin - Left trailing edge (Sta. 57.0 to 89.0)						1	1
-8	0322209	Rib - Wing trailing edge (Sta. 57.0)						1	1
-9	0322210	Rib - Wing trailing edge (Sta. 65.0)						1	1
-10	0322211	Rib - Wing trailing edge (Sta. 73.0)						1	1
-11	0322212	Rib - Wing trailing edge (Sta. 81.0)						1	1
	0322200-23	Skin Assembly - Left outboard						1	1
-12	0322200-5	Skin - Left trailing edge (Sta. 89.0 to 119.0)						1	1
-13	0322213	Rib - Wing trailing edge (Sta. 89.0)						1	1
-14	0322214	Rib - Wing trailing edge (Sta. 99.0)						1	1
-15	0322215	Rib - Wing trailing edge (Sta. 109.0)						1	1
-16	0322220	Rib - Wing trailing edge (Sta. 119.0)						1	1
-17	0322221-4	Skin - Left wing flap well inboard						1	1
-18	0322221-3	Skin - Left wing flap well outboard						1	1
-19	0320126	Fairlead - Aileron cable outboard (Sta. 109.0)						1	1
-20	0322400	Spar Assembly - Left wing rear						1	1
	0322400-20	Spar Assembly - Wing rear (less brackets)						1	1
-21	0322406	Cap Strip - Upper outboard						1	1
-22	0322434	Web - Left outboard (Sta. 161.5 to 181.0)						1	1
-23	0322408	Cap Strip - Lower outboard						1	1
-24	0320132	Bracket - Left flap control						1	1
	AN3-5A	Bolt - (Attach flap control bracket)						1	1
	AN366F1032	Nutplate						1	1
-25	0320111	Bracket Assembly - Left aileron bellcrank						1	1
	0320116	Spacer - Aileron bellcrank bracket						1	1
-26	0320117	Bracket Assembly - Left aileron control pulley						1	1
-27	0320124	Stop Assembly - Left aileron bellcrank						1	1
-28	0320125	Stop - Left aileron bellcrank						1	1
-29	0320119	Bolt - Aileron bellcrank stop						1	1
	AN366F428	Nutplate						1	1
-30	AN3-4A	Bolt - (Attach bellcrank and stop to rear spar)						1	1
-31	AN3-5A	Bolt - (Attach bellcrank and stop to rear spar)						1	1
-32	AN3-6A	Bolt - (Attach bellcrank and stop to rear spar)						2	2
-33	AN960-3	Washer						6	6
-34	AN365-1032	Nut						4	4
-35	0322709	Bracket Assembly - Left aileron hinge						1	1
-36	NAS296-4A	Bearing - (Torrington AR4-1)						1	1
-37	AN3-6A	Bolt - (Attach aileron hinge to rear spar at upper points)						2	2
-38	AN3-5A	Bolt - (Attach aileron hinge to rear spar at lower points)						2	2
	AN960-3	Washer						6	6
	AN365-1032	Nut						4	4
-39	22A3-02	Nutplate - (Esna) (Attach outboard aileron hinge)						4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

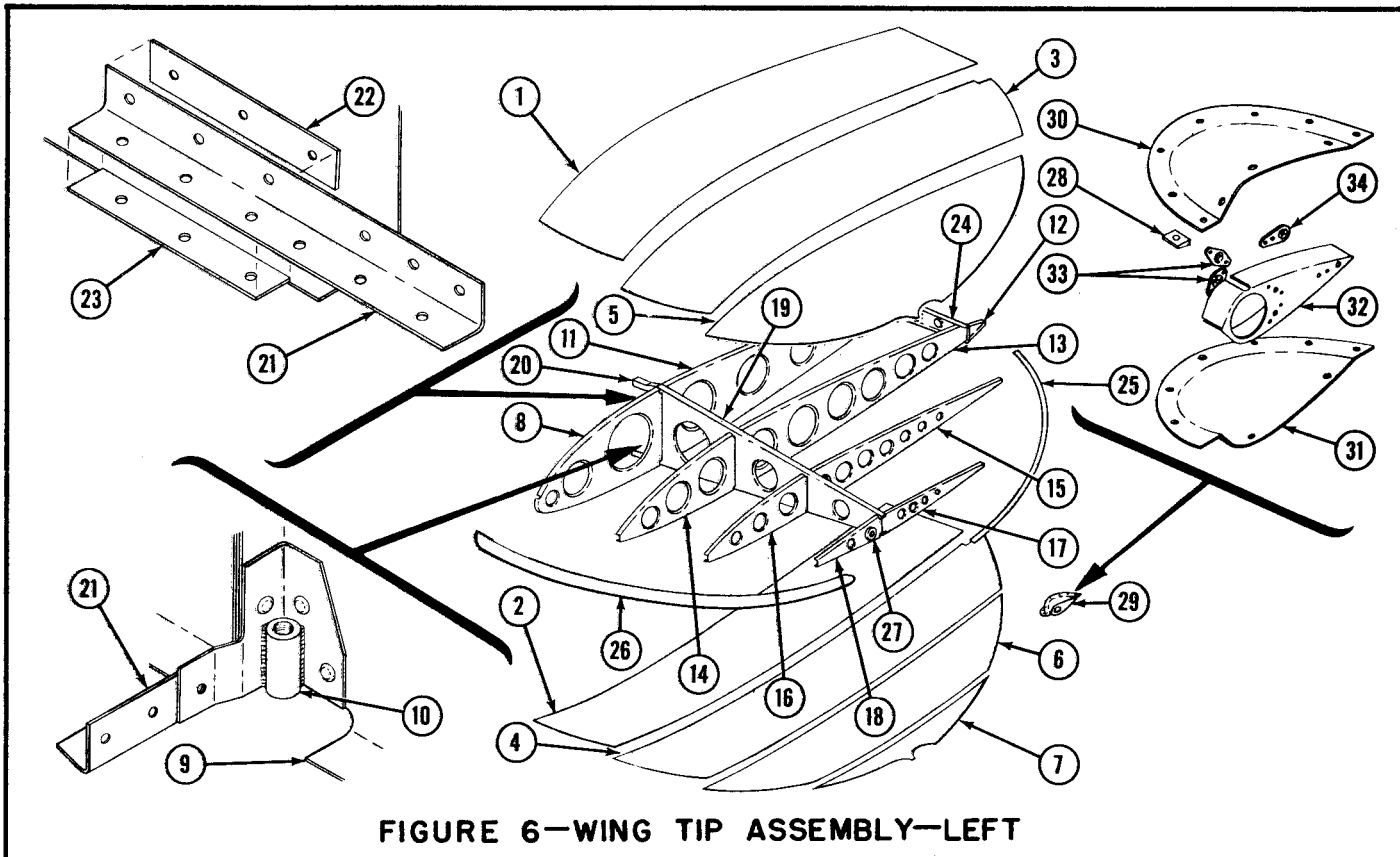


FIGURE 6—WING TIP ASSEMBLY—LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			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



ILLUSTRATED PARTS CATALOG

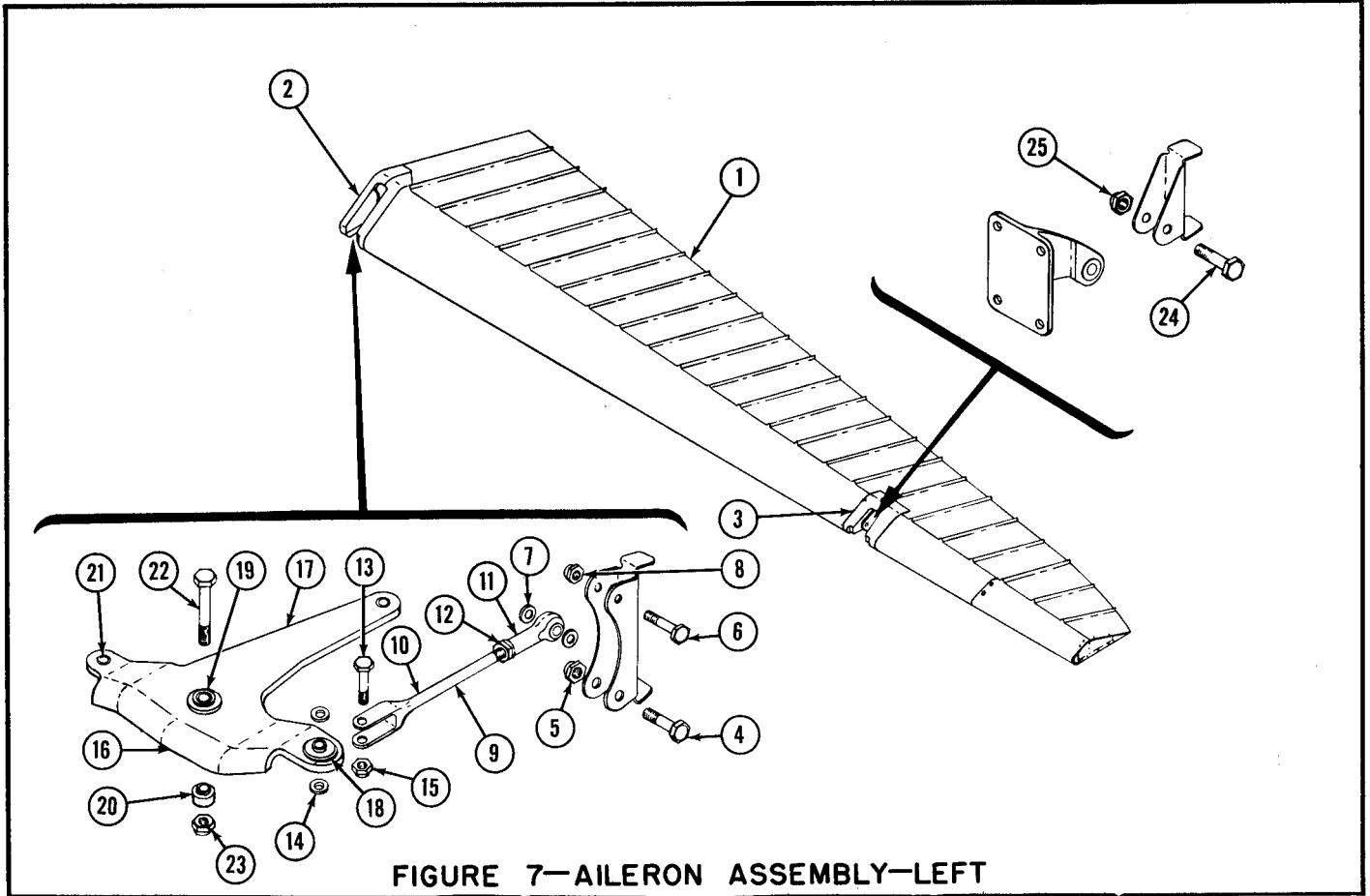


FIGURE 7—AILERON ASSEMBLY—LEFT

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

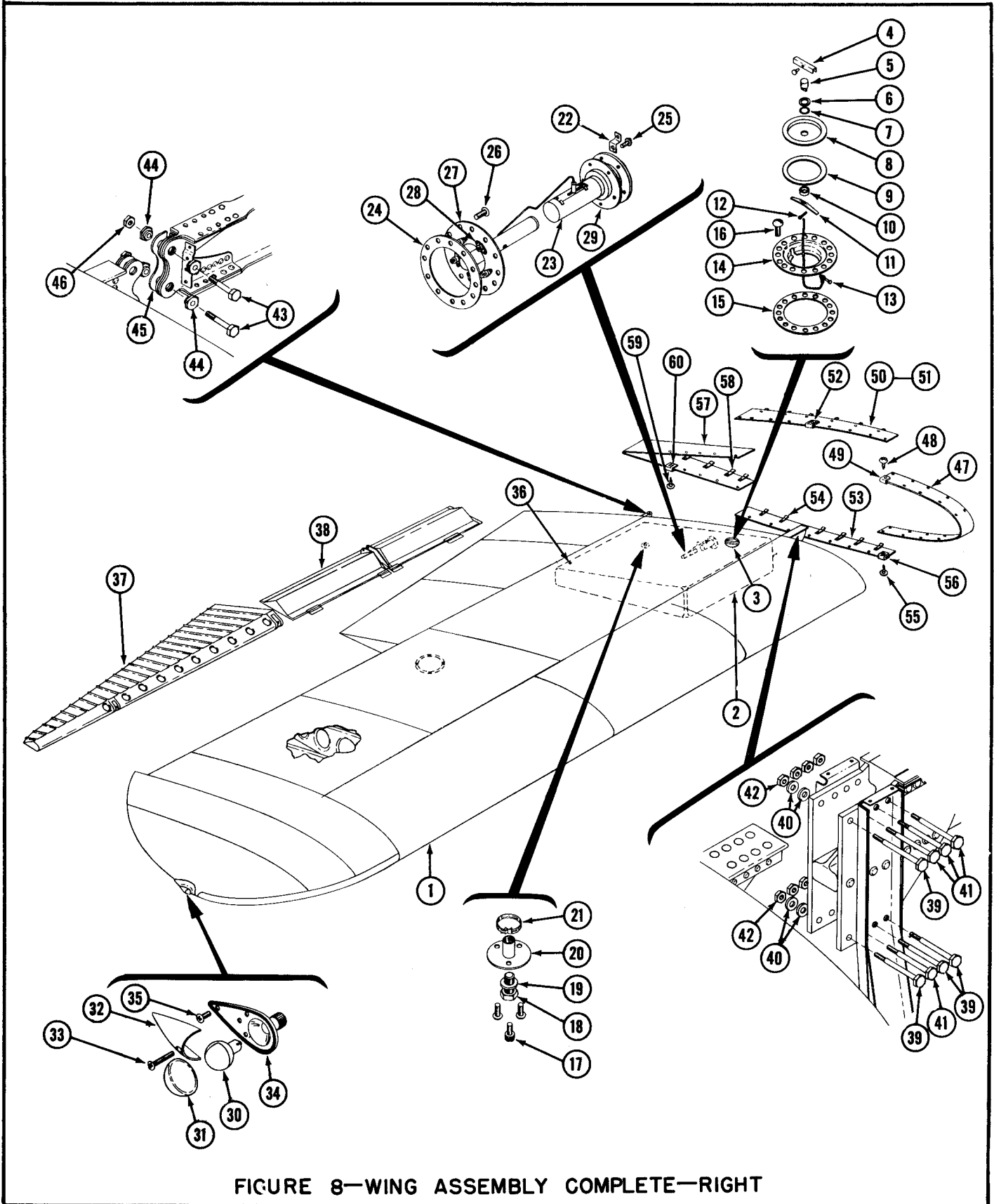


FIGURE 8—WING ASSEMBLY COMPLETE—RIGHT



ILLUSTRATED PARTS CATALOG

FIGURE 8

WING ASSEMBLY - COMPLETE RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
								Ref	Ref
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	Shlm - 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

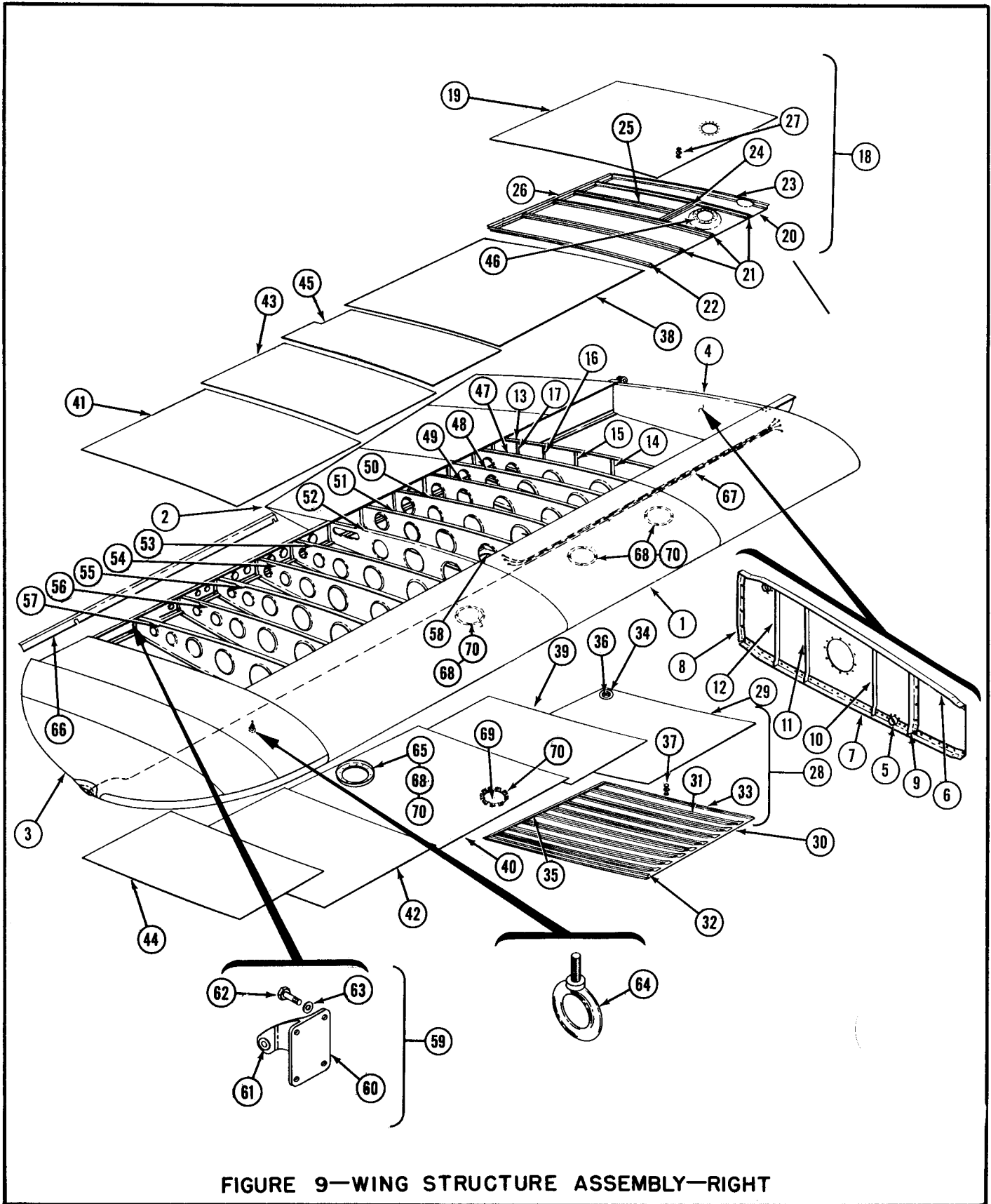


FIGURE 9—WING STRUCTURE ASSEMBLY—RIGHT

## ILLUSTRATED PARTS CATALOG

FIGURE 9

## WING STRUCTURE ASSEMBLY - RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
9-1	0320000-21	Structure Assembly - Right wing (see fig 8 for NHA)	Ref	Ref
-2	0322222	Trailing Edge Assembly - Right wing (see fig 11 for breakdown)	1	1
-3	0323000-1	Wing Tip Assembly - Right (see fig 12 for breakdown)	1	1
	0322518-1	Bulkhead Assembly - Fuel cell right (sta. 28.875)	1	1
-4	0322519	Bulkhead Assembly - Fuel cell (sta. 28.875)	1	1
-5	0322524	Adapter - Fuel cell outlet	2	2
-6	0322520-1	Angle - Bulkhead stiffener upper	1	1
-7	0322521-1	Angle - Bulkhead stiffener lower	1	1
-8	0322522	Angle - Bulkhead forward	1	1
-9	0322523-1	Angle - Bulkhead stiffener	1	1
-10	0322523-2	Angle - Bulkhead stiffener	1	1
-11	0322523-3	Angle - Bulkhead stiffener	1	1
-12	0322523-4	Angle - Bulkhead stiffener	1	1
	0322507-1	Bulkhead Assembly - Fuel cell right (sta. 65)	1	1
-13	0322506-1	Bulkhead - Fuel cell outboard (sta. 65)	1	1
-14	0322508-1	Stiffener - Outboard bulkhead	1	1
-15	0322508-2	Stiffener - Outboard bulkhead	1	1
-16	0322508-3	Stiffener - Outboard bulkhead	1	1
-17	0322508-4	Stiffener - Outboard bulkhead	1	1
-18	0322500-1	Panel Assembly - Fuel cell upper right	1	1
-19	0322500-4	Skin - Upper panel outer right	1	1
-20	0322540-1	Skin - Upper panel inner right	1	1
-21	0322511	Stiffener - Upper fuel cell panel	3	3
-22	0322513-1	Stiffener - Upper panel outboard right	1	1
-23	0322515-1	Stiffener - Upper panel inboard right	1	1
-24	0322530	Stiffener - Upper fuel cell cross	1	1
-25	0322531	Stiffener - Upper fuel cell panel (sta. 41)	1	1
-26	0322516-5	Stiffener - Upper fuel cell panel rear	1	1
-27	NAS455-4-2	Rivet - Attach skin to stiffeners (Cherry CR163-4-2)	33	33
-28	0322510-1	Panel Assembly - Fuel cell lower right	1	1
-29	0322510-4	Skin - Lower panel inner right	1	1
-30	0322510-6	Skin - Lower panel outer right	1	1
-31	0322509	Stiffener - Lower panel inner right	8	8
-32	0322512-1	Stiffener - Lower panel outboard right	1	1
-33	0322514-1	Stiffener - Lower panel inboard right	1	1
-34	0322517	Adapter - Fuel cell drain panel	1	1
-35	0322516-6	Stringer - Fuel cell panel rear	1	1
-36	AN366F832	Nutplate - Fuel cell drain adapter	3	3
-37	NAS455-4-2	Rivet - (Attach skin to stiffeners (Cherry CR163-4-2)	64	64
-38	0320300-2	Skin - Inboard top (sta. 65.0 to 109.0)	1	1
-39	0320300-3	Skin - Inboard bottom (sta. 65.0 to 89.0)	1	1
-40	0320300-5	Skin - Center inboard bottom (sta. 89 to 129.0)	1	1
-41	0320300-6	Skin - Outboard top (sta. 149.5 to 181)	1	1
-42	0320300-7	Skin - Outboard center bottom (sta. 129 to 160.0)	1	1
-43	0320300-8	Skin - Outboard center top (sta. 129 to 149.5)	1	1
-44	0320300-9	Skin - Outboard bottom (sta. 160.0 to 181.0)	1	1
-45	0320300-10	Skin - Center inboard top (sta. 109.0 to 129.0)	1	1
-46	0322528	Filler - Fuel tank	1	1
	214	Tape - (3-3/4 mystic) (cover rivets in fuel tank cavity)	AR	AR
-47	0322607	Rib - Wing intermediate (sta. 73.0)	1	1
-48	0322608	Rib - Wing intermediate (sta. 81.0)	1	1
-49	0322609	Rib - Wing intermediate (sta. 89.0)	1	1
-50	0322610	Rib - Wing intermediate (sta. 99.0)	1	1
-51	0322611	Rib - Wing intermediate (sta. 109.0)	1	1
-52	0322612-1	Rib - Wing intermediate (sta. 119.0)	1	1
-53	0322613	Rib - Wing intermediate (sta. 129.0)	1	1
-54	0322614	Rib - Wing intermediate (sta. 139.0)	1	1
-55	0322615	Rib - Wing intermediate (sta. 149.0)	1	1
-56	0322616	Rib - Wing intermediate (sta. 160.0)	1	1
-57	0322617	Rib - Wing intermediate (sta. 170.5)	1	1
-58	0322621	Plate - Landing light mounting right	1	1
-59	0322710-1	Bracket Assembly - Outboard aileron hinge right	1	1
-60	0322706-1	Bracket - Outboard aileron hinge	1	1
-61	NAS296-4A	Bearing - (Torrington AR-4-1)	1	1
-62	AN3-5A	Bolt - (Attach aileron hinge bracket)	4	4
-63	AN960-3	Washer	4	4
-64	0422344	Mooring Eyebolt	1	1
-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 A1768-8Z-3)	24	24

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

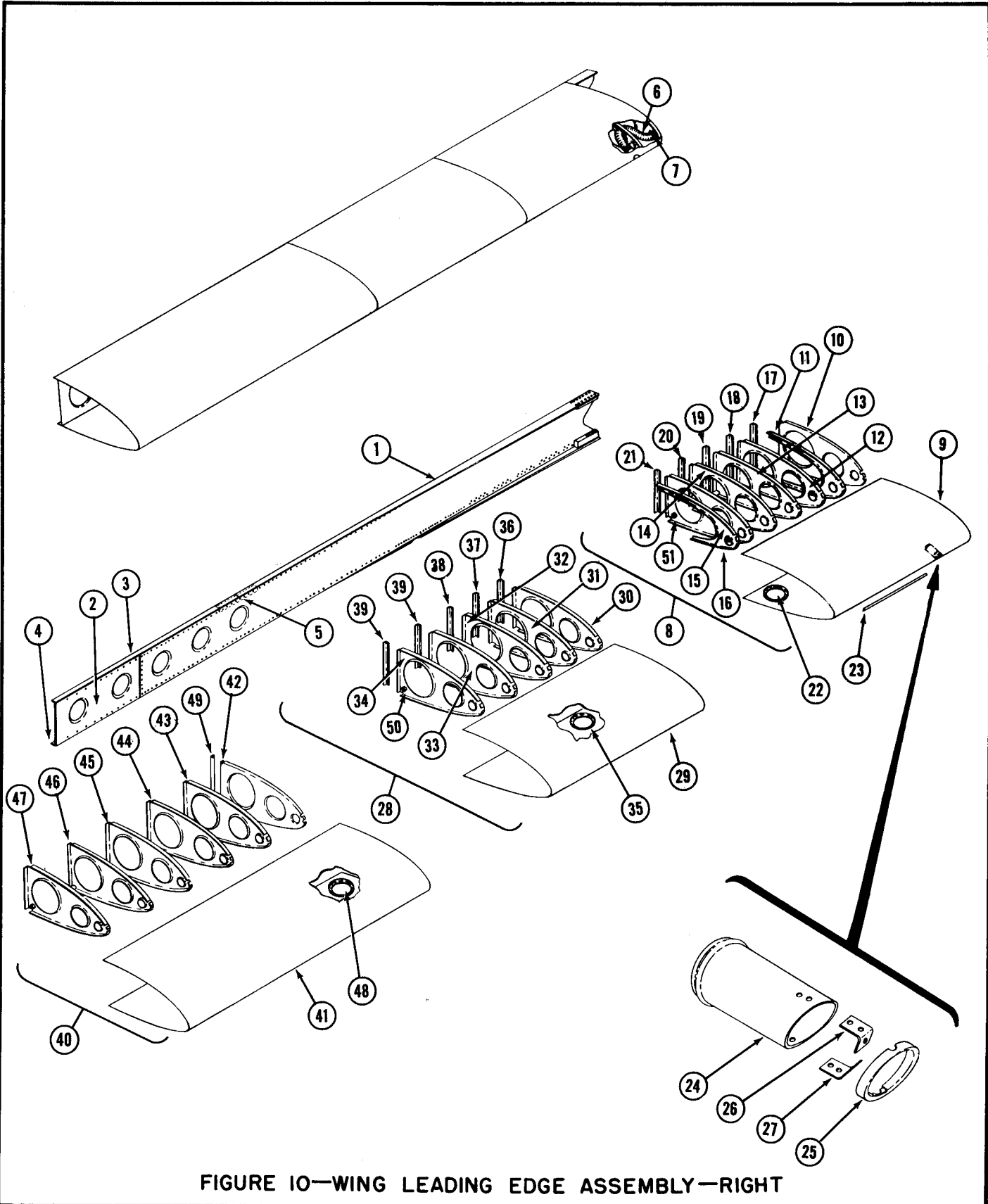


FIGURE 10—WING LEADING EDGE ASSEMBLY—RIGHT



ILLUSTRATED PARTS CATALOG

FIGURE 10

LEADING EDGE ASSEMBLY - RIGHT WING

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	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

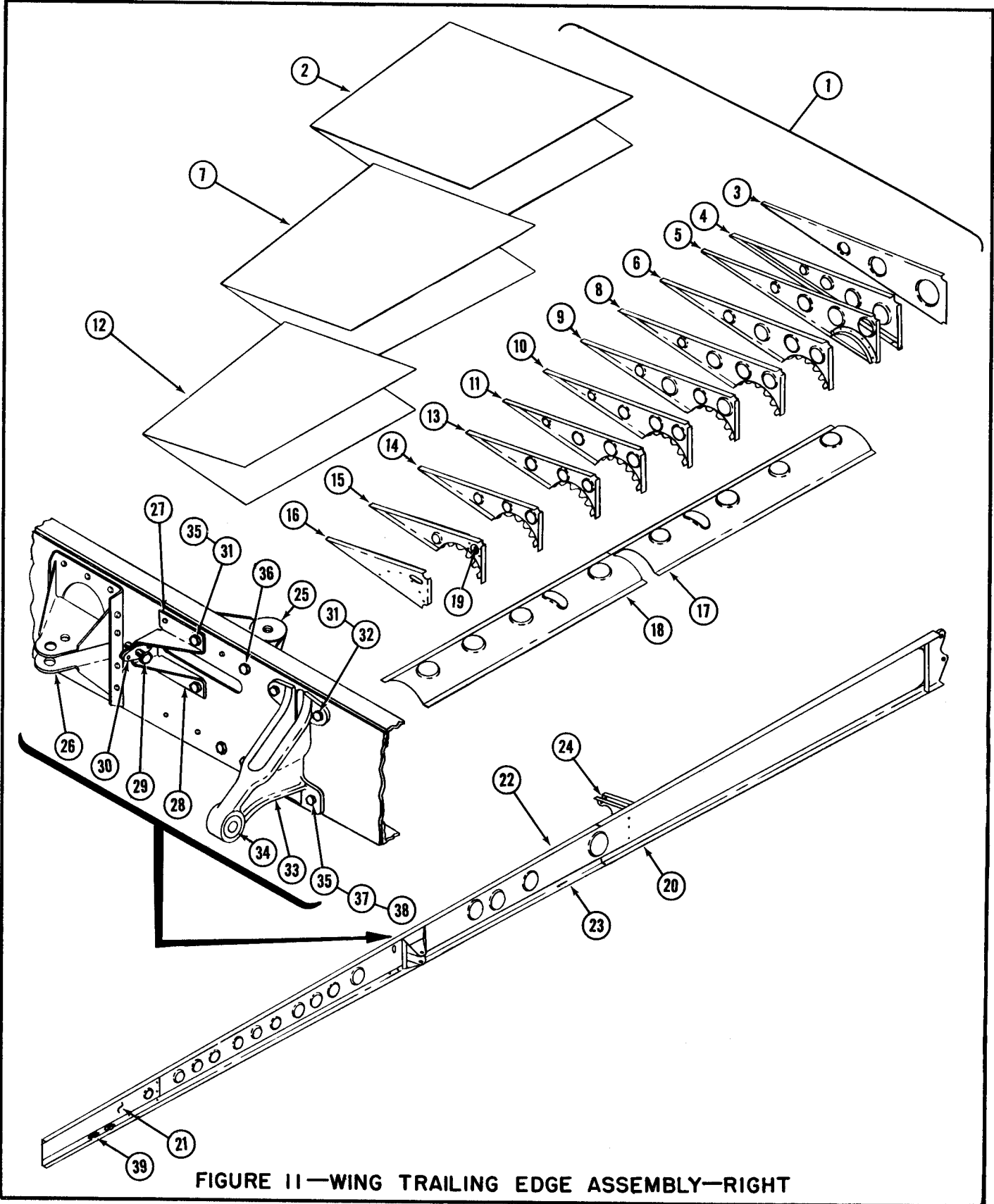


FIGURE 11—WING TRAILING EDGE ASSEMBLY—RIGHT





ILLUSTRATED PARTS CATALOG

FIGURE 11

TRAILING EDGE ASSEMBLY - RIGHT WING

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
								190	195
								Ref	Ref
		1	2	3	4	5	6		
	0322222	Trailing Edge Assembly - Right wing (see figure 9 for NHA)						Ref	Ref
11-1	0322222-20	Skin Assembly - Wing trailing edge right wing						1	1
	0322222-21	Skin Assembly - Inboard right (Sta. 28.875 to 57.0)						1	1
-2	0322222-3	Skin - Wing trailing edge right (Sta. 28.875 to 57.0)						1	1
-3	0322206-1	Rib - Wing trailing edge right (Sta. 28.875 to 57.0)						1	1
-4	0322550	Rib - Wing trailing edge right (Sta. 35.625)						1	1
-5	0322218-1	Rib Assembly - Wing trailing edge right (Sta. 41.0)						1	1
-6	0322208	Rib - Wing trailing edge right (Sta. 49.0)						1	1
	0322222-22	Skin Assembly - Center right (Sta. 57.0 to Sta. 89.0)						1	1
-7	0322222-4	Skin - Wing trailing edge right (Sta. 57.0 to Sta. 89.0)						1	1
-8	0322209	Rib - Wing trailing edge right (Sta. 57.0)						1	1
-9	0322210	Rib - Wing trailing edge right (Sta. 65.0)						1	1
-10	0322211	Rib - Wing trailing edge right (Sta. 73.0)						1	1
-11	0322212	Rib - Wing trailing edge right (Sta. 81.0)						1	1
	0322222-23	Skin Assembly - Outboard right (Sta. 89.0 to 119.0)						1	1
-12	0322222-5	Skin - Wing trailing edge right (Sta. 89.0 to 119.0)						1	1
-13	0322213	Rib - Wing trailing edge right (Sta. 89.0)						1	1
-14	0322214	Rib - Wing trailing edge right (Sta. 99.0)						1	1
-15	0322215	Rib - Wing trailing edge right (Sta. 109.0)						1	1
-16	0322220-1	Rib Assembly - Wing trailing edge right (Sta. 119.0)						1	1
	0322221-1	Skin Assembly - Wing flap well right						1	1
-17	0322221-5	Skin - Wing flap well outboard						1	1
-18	0322221-6	Skin - Wing flap well inboard						1	1
-19	0320126	Fairlead - Aileron cable outboard (Sta. 109.0)						1	1
-20	0322400-1	Spar Assembly - Wing trailing edge right						1	1
	0322400-21	Spar Assembly - Wing right (less hinge brackets)						1	1
-21	0322434-1	Web - Outboard right (Sta. 161.5 to 181.0)						1	1
-22	0322406	Cap Strip - Upper outboard						1	1
-23	0322408	Cap Strip - Lower outboard						1	1
-24	0320132-1	Bracket - Flap control right						1	1
-25	0320111-1	Bracket Assembly - Aileron bellcrank right						1	1
	0320116	Spacer - Aileron bellcrank bracket right						1	1
-26	0320117-1	Bracket Assembly - Aileron control pulley right						1	1
-27	0320124-1	Stop Assembly - Aileron bellcrank right						1	1
-28	0320125-1	Stop - Aileron bellcrank right						1	1
-29	0320119	Bolt - Aileron bellcrank stop						1	1
-30	AN366F-428	Nutplate						1	1
-31	AN3-6A	Bolt						4	4
-32	AN365-1032	Nut						4	4
-33	0322709-1	Bracket Assembly - Inboard aileron hinge						1	1
-34	AR4-1	Bearing						1	1
-35	AN3-5A	Bolt - (Attach aileron hinge to spar)						1	1
-36	AN3-4A	Bolt - (Attach aileron hinge to spar)						1	1
-37	AN960-3	Washer						12	12
-38	AN365-1032	Nut - (Attach aileron hinge bracket)						5	5
-39	22A3-02	Nutplate - (Attach outboard aileron hinge)						4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

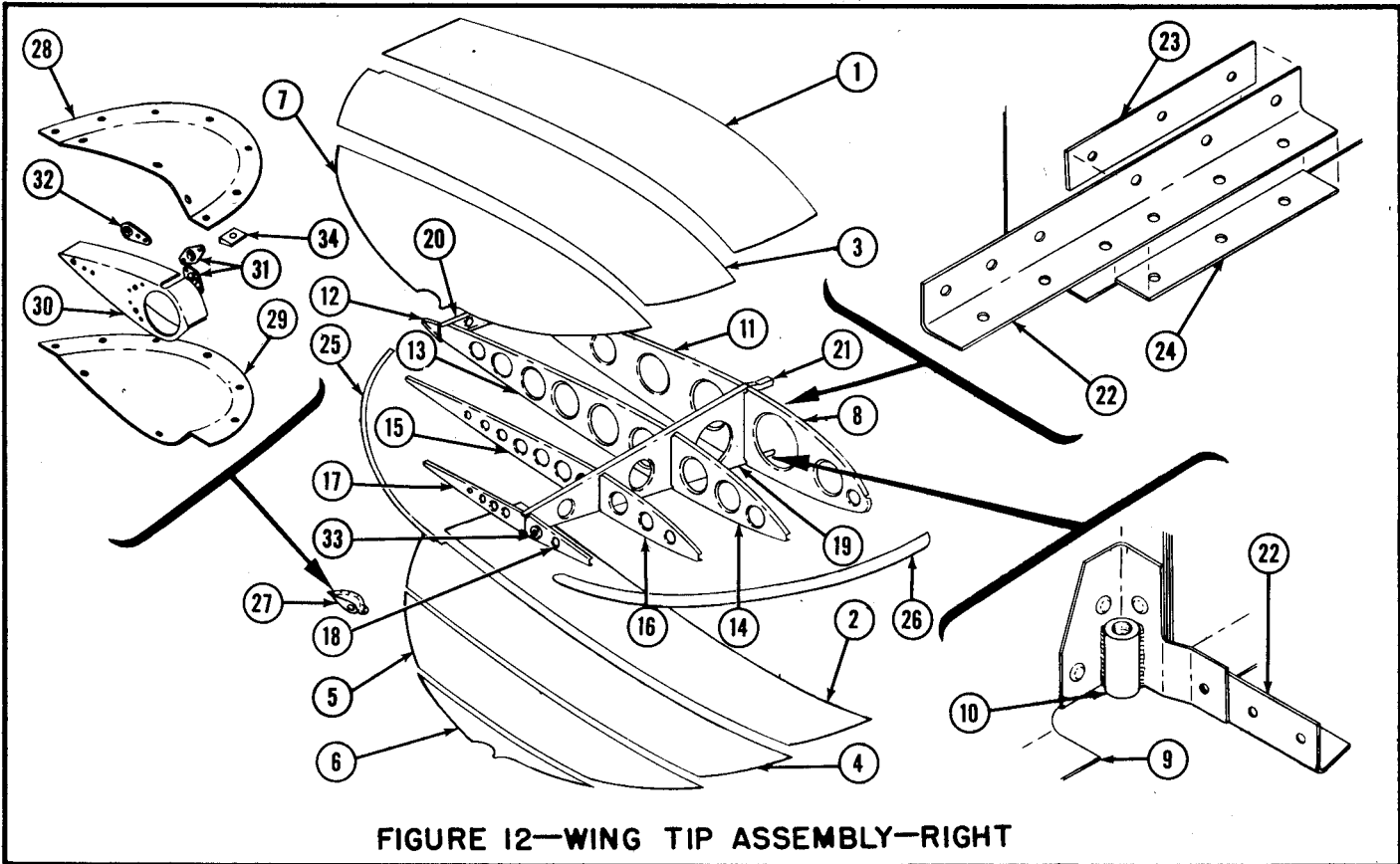


FIGURE 12—WING TIP ASSEMBLY—RIGHT

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	Grummet	4	4
-34	0323000-19	Spacer	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

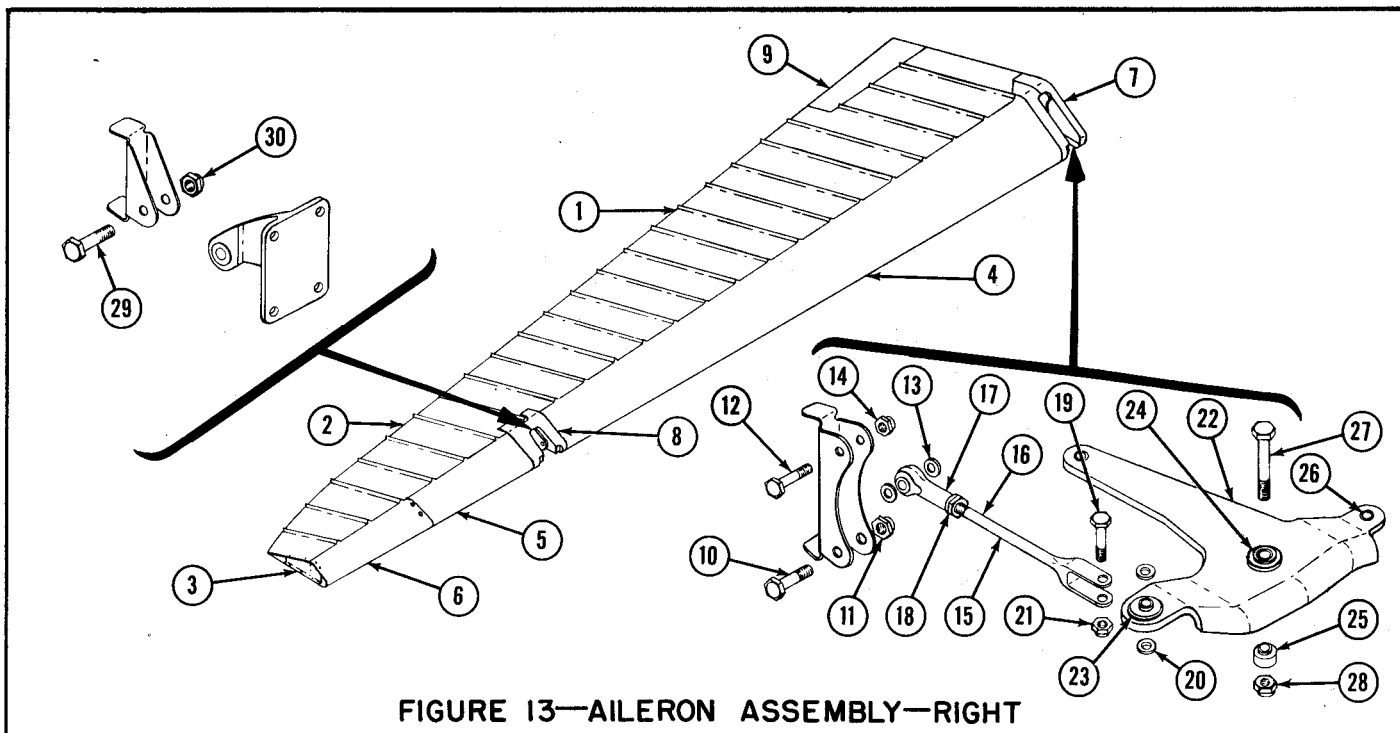


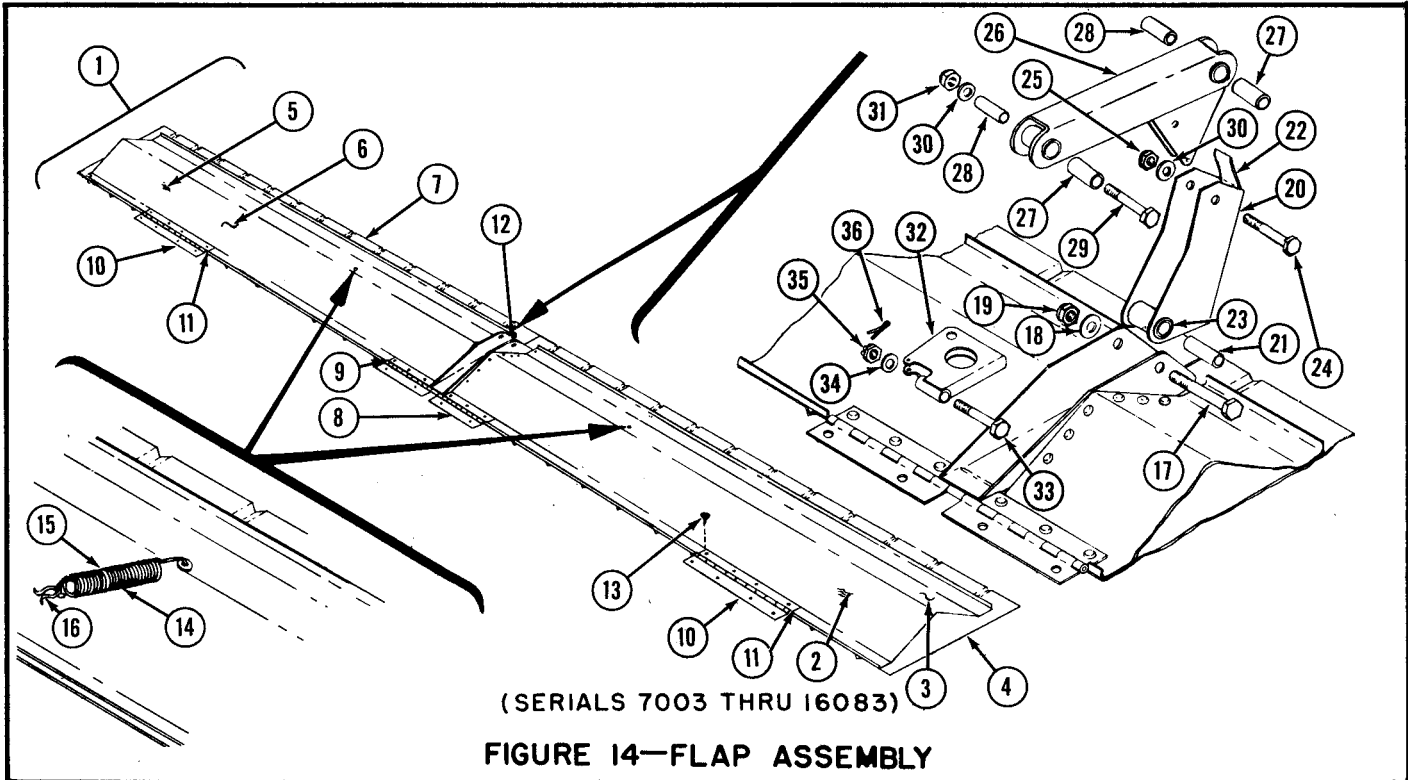
FIGURE 13—AILERON ASSEMBLY—RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
13-1	0324000-1	Aileron	Assembly	-	Right wing (see figure 9 for NHA)			Ref	Ref
-2	0324000-3	Skin	-	Aileron	upper			1	1
-3	0324000-5	Skin	-	Aileron	lower			1	1
-4	0324109-1	Skin	-	Aileron	leading edge (Sta. 121.5 to 169.625)			1	1
-5	0324129-1	Skin	-	Aileron	leading edge (Sta. 171.875 to 181.5)			1	1
-6	0324130-1	Skin	-	Aileron	leading edge (Sta. 181.5 to 191.0)			1	1
-7	0324110-1	Cover	Assembly	-	Inboard aileron hinge			1	1
	PK76XZ-8-6	Screw	-	(Attach	cover)			4	4
	NAS444-5	Nut	-	(Attach	cover)			4	4
-8	0324111-1	Plate	-	Outboard	aileron hinge cover			1	1
	PK76XZ-8-6	Screw	-	(Attach	plate)			4	4
	NAS444-5	Nut	-	(Attach	plate)			4	4
-9	0324115	Tab	-	Aileron	trim			1	1
	PK76XZ-8-6	Screw	-	(Attach	tab)			6	6
	NAS395-17-3	Nut	-	(Finnerman	A1348-8Z-3)			6	6
-10	AN4-11A	Bolt	-	(Attach	inboard aileron hinge to bracket)			1	1
-11	AN365-428	Nut						1	1
-12	AN3-11A	Bolt	-	(Attach	aileron push-pull tube to aileron)			1	1
-13	AN960-10	Washer						2	2
-14	AN365-1032	Nut						1	1
-15	0320121	Rod	Assembly	-	Aileron push-pull			1	1
-16	0320121-2	Rod	-	Aileron	push-pull			1	1
-17	NAS-36	Rod	End	-	Aileron push-pull			1	1
-18	AN316-4R	Nut	-	Lock				1	1
-19	AN3-10A	Bolt	-	(Attach	aileron push-pull tube to bellcrank)			1	1
-20	AN960-10	Washer						2	2
-21	AN365-1032	Nut						1	1
	0320106-1	Bell	crank	Assembly	-	Aileron (ser 7003 thru 16083)		1	1
-22	0320106-3	Bell	crank	Assembly	-	Aileron (less bearing) (ser 7003 thru 16083)		1	1
-23	0320110	Bushing	-	Aileron	bellcrank cable			2	2
	0320107-1	Bell	crank	Assembly	-	Aileron (ser 16084 & on)		1	1
	0320107-3	Bell	crank	Assembly	-	Aileron (less bearings) (ser 16084 & on)		1	1
	0320108	Bushing	-	Aileron	bellcrank cable (ser 16084 & on)			1	1
	0320109	Bushing	-	Aileron	bellcrank cable (ser 16084 & on)			1	1
	AN200-KS3	Bearing	-	(fafnir)				1	1
-25	NAS296-4A	Bearing	-	(Torrington	AR4-1)			2	2
-26	0320140	Spacer	-	Aileron	bellcrank bearing			1	1
-27	AN4-20A	Bolt	-	(Attach	aileron bellcrank to bracket)			1	1
-28	AN365-428	Nut						1	1
-29	AN4-11A	Bolt	-	(Attach	outboard aileron hinge to bracket)			1	1
-30	AN365-428	Nut						1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG



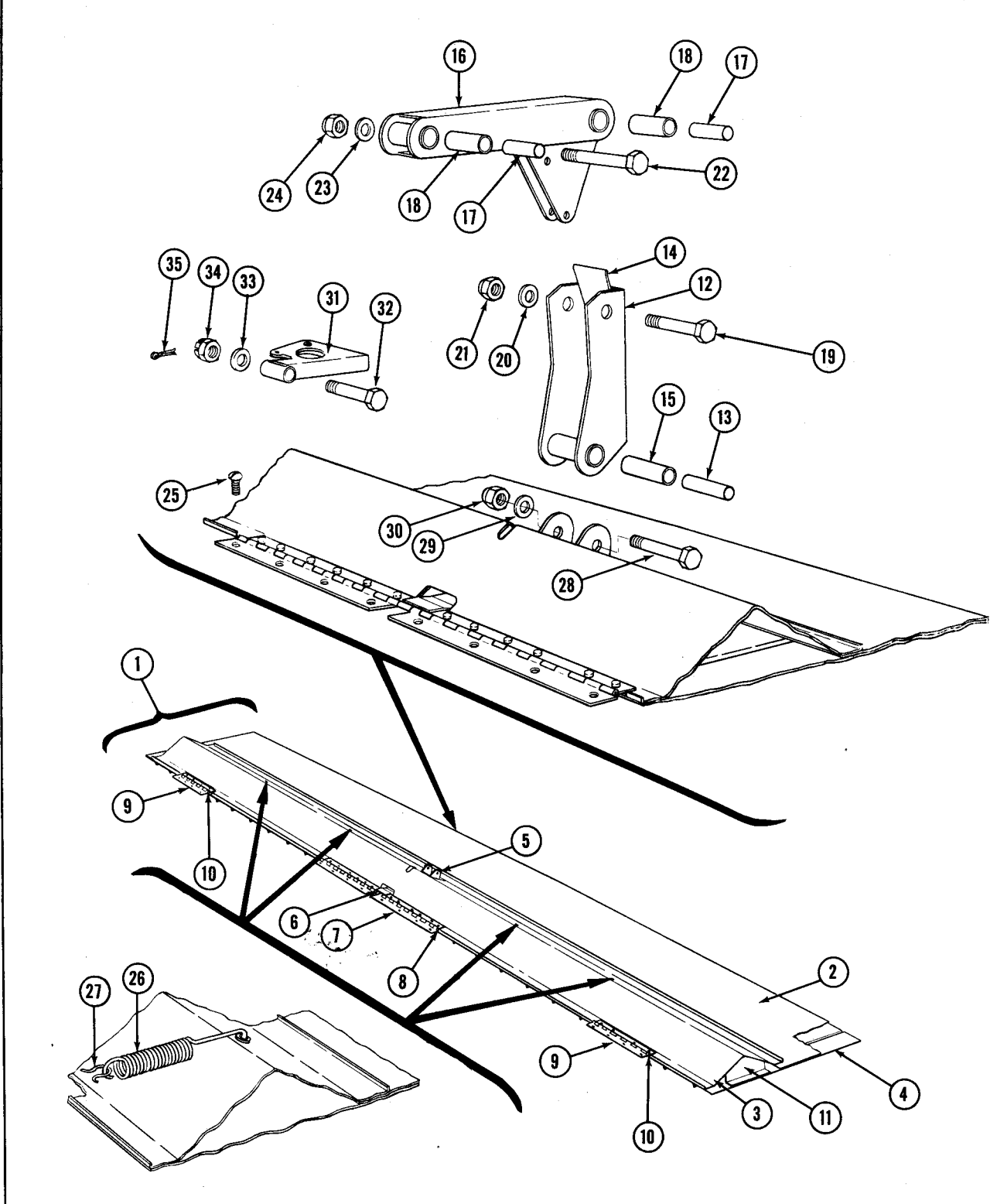
(SERIALS 7003 THRU 16083)

FIGURE 14—FLAP ASSEMBLY

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



ILLUSTRATED PARTS CATALOG



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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 14A

FLAP ASSEMBLY (SERIALS 16084 & ON)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
								Ref	Ref
14A-1	0325001	Flap Assembly - (See figure 2 & 8 for NHA)						Ref	Ref
	0325001-1	Flap Assembly - Left wing						1	1
	0325001-2	Flap Assembly - Right wing						1	1
-2	0325001-13	Doubler						1	1
	0325001-7	Skin Assembly - Flap left						1	1
-3	0325001-9	Skin - Upper						1	1
-4	0325001-11	Skin - Lower						1	1
	0325001-8	Skin Assembly - Flap right						1	1
	0325001-10	Skin - Upper						1	1
	0325001-12	Skin - Lower						1	1
	0325001-3	Bracket Assembly - Flap center						1	1
-5	0325001-5	Bracket						1	1
-6	0325001-4	Channel						1	1
-7	0325121	Hinge Assembly - Flap center						1	1
-8	0325121-4	Pin - Flap center hinge (AN253-2-1675)						1	1
-9	0325116	Hinge Assembly - Flap end						2	2
-10	0325116-5	Pin - Flap end hinge (AN253-2-575)						1	1
-11	0325117	Rib Assembly						2	2
	0320137	Arm Assembly - Flap control lower						1	1
-12	0320137-3	Arm - Flap control lower						1	1
-13	A443-2	Bushing - Oilite						1	1
-14	0320139	Stop - Arm						1	1
-15	0320138-2	Bushing - Flap control arm						1	1
	0320129	Arm Assembly - Flap control upper						1	1
-16	0320129-3	Arm - Flap control upper						1	1
-17	A443-3	Bushing - Oilite						2	2
-18	0320138-1	Bushing - Flap control upper						2	2
-19	AN4-12A	Bolt - (Attach lower arm to upper arm)						1	1
-20	AN960-416	Washer						1	1
-21	AN365-428	Nut						1	1
-22	AN4-12A	Bolt - (Attach upper arm to spar bracket)						1	1
-23	AN960-416	Washer						1	1
-24	AN365-428	Nut						1	1
-25	AN526-1032R5	Screw - (Attach flap hinge to wing)						16	16
	AN365-1032	Nut						16	16
-26	0320145	Spring - Flap return						4	4
-27	2169	Fastener						4	4
-28	AN4-16A	Bolt - (Attach lower actuating arm to flap)						1	1
-29	AN960-416	Washer						1	1
-30	AN365-428	Nut						1	1
-31	0320135	Bracket Assembly - Flap control pulley						1	1
-32	AN3-12A	Bolt - (Attach pulley bracket to spar bracket)						1	1
-33	AN960-10	Washer						1	1
-34	AN310-3	Nut - Castle shear						1	1
-35	AN380-2-2	Pin - Cotter						1	1

## ILLUSTRATED PARTS CATALOG

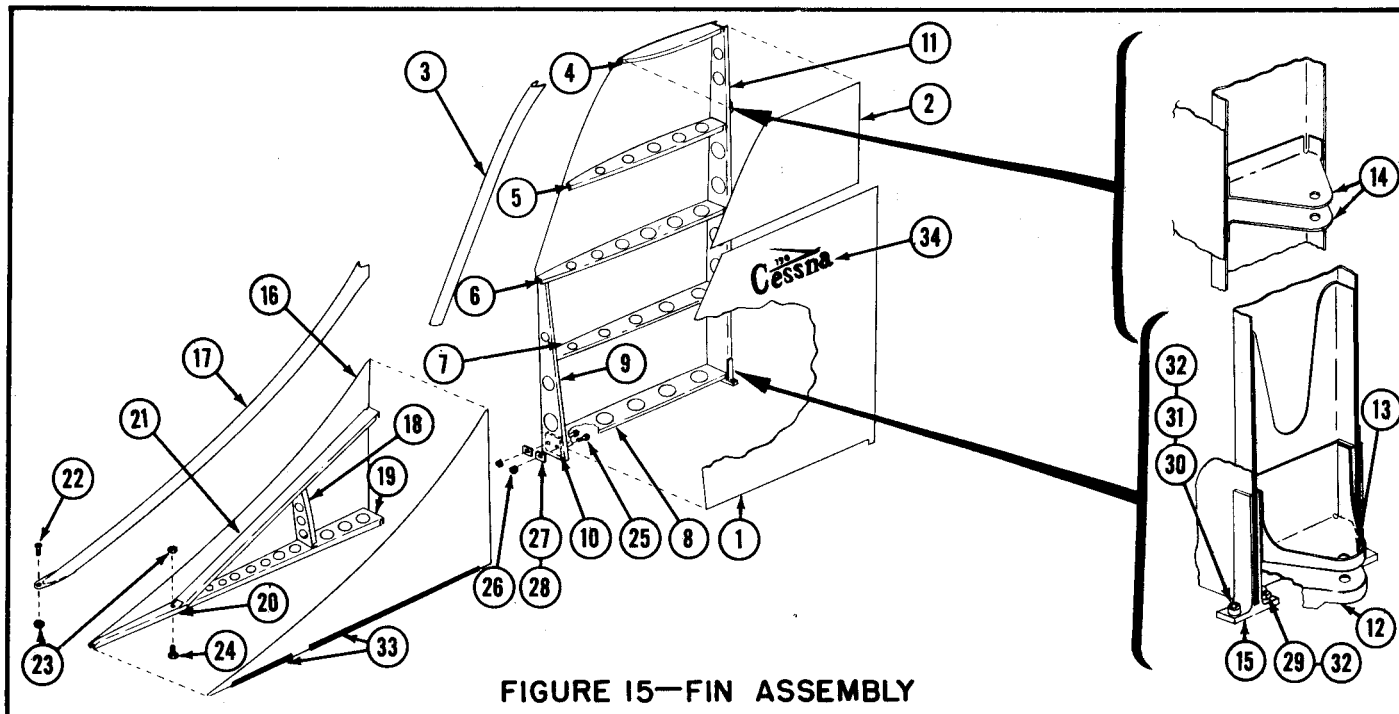


FIGURE 15—FIN ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0331100	Fin Assembly - Vertical (includes dorsal fin) (see figure 1 for NHA)	Ref	Ref
	0331100 CP	Fin Assembly - Vertical (includes dorsal fin) (corrosion proofed)	1	1
	0331000-50	Fin Assembly - Vertical	1	1
15-1	0331000-3	Skin - Fin lower	1	1
-2	0331000-4	Skin - Fin upper	1	1
-3	0331127	Leading Edge - Fin upper	1	1
-4	0331106	Rib - Fin upper #5	1	1
-5	0331107	Rib - Fin #4	1	1
-6	0331108	Rib - Fin #3	1	1
-7	0331109	Rib - Fin #2	1	1
-8	0331110	Rib - Fin lower #1	1	1
-9	0331125	Spar - Fin front	1	1
-10	0331121	Plate - Spar reinforcement	1	1
-11	0331114-50	Spar - Fin rear	1	1
-12	0331118	Bracket - Fin lower hinge	1	1
-13	0331119	Bracket - Fin lower hinge	1	1
-14	0331120	Bracket - Fin upper hinge	2	2
-15	0331124	Fitting - Fin rear attachment	2	2
	0331133	Fin Assembly - Dorsal	1	1
-16	0331133	Skin - Dorsal Fin	2	2
-17	0331129	Leading Edge - Dorsal fin	1	1
-18	0331130	Rib - Dorsal fin vertical stiffener	1	1
-19	0331132	Rib - Dorsal fin lower rear	1	1
-20	0331134	Rib - Dorsal fin lower forward	1	1
-21	0331131	Channel - Dorsal fin stiffener	1	1
-22	AN526-1032R8	Screw - (Front fin attachment)	1	1
-23	AN365-1032	Nut	1	1
-24	AN3-4A	Bolt - (Center fin attachment)	1	1
-25	AN4-5A	Bolt - (Attach fin front spar to bulkhead)	2	2
-26	AN365-428	Nut	2	2
-27	0430010-1	Shim - Empennage installation (.020)	AR	AR
-28	0430010-2	Shim - Empennage installation (.032)	AR	AR
-29	NAS145-14	Bolt - Rear fin inner attachment	2	2
-30	NAS145-18	Bolt - Rear fin outer attachment	2	2
-31	NAS143-5C	Washer	4	4
-32	AN365-524	Nut	4	4
-33	0311875-22	Moulding - (X200 rubber channel) (order per foot)	AR	AR
-34	0331128-1	Insignia - Fin - (190) (red)	1	
	0331128-2	Insignia - Fin (190) (blue)	1	
	0331128-7	Insignia - Fin (190) (green)	1	
	0331128-3	Insignia - Fin (195) (red)		1
	0331128-4	Insignia - Fin (195) (blue)		1
	0331128-8	Insignia - Fin (195) (green)		1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

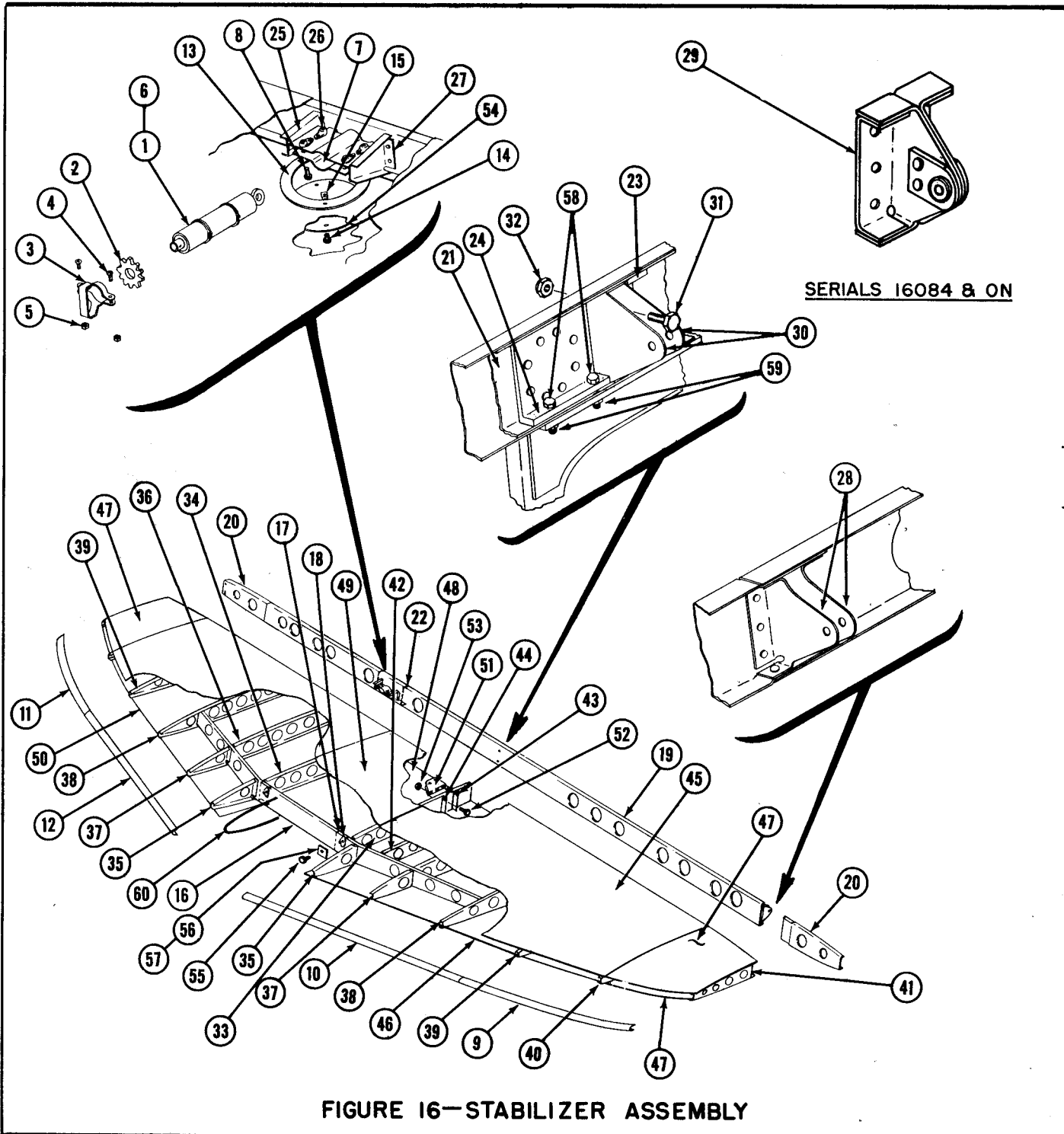


FIGURE 16—STABILIZER ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
			Ref	Ref
	No Number	Stabilizer Assembly - Horizontal (see figure 1 for NHA) (0332000)		
	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	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	2
	0334224-3						Hinge Half - Elevator front (ser 16084 & on)	2	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	1
-34	0332118-1						Rib - Stabilizer center #1 right hand (serials 16084 & on)	1	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	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	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

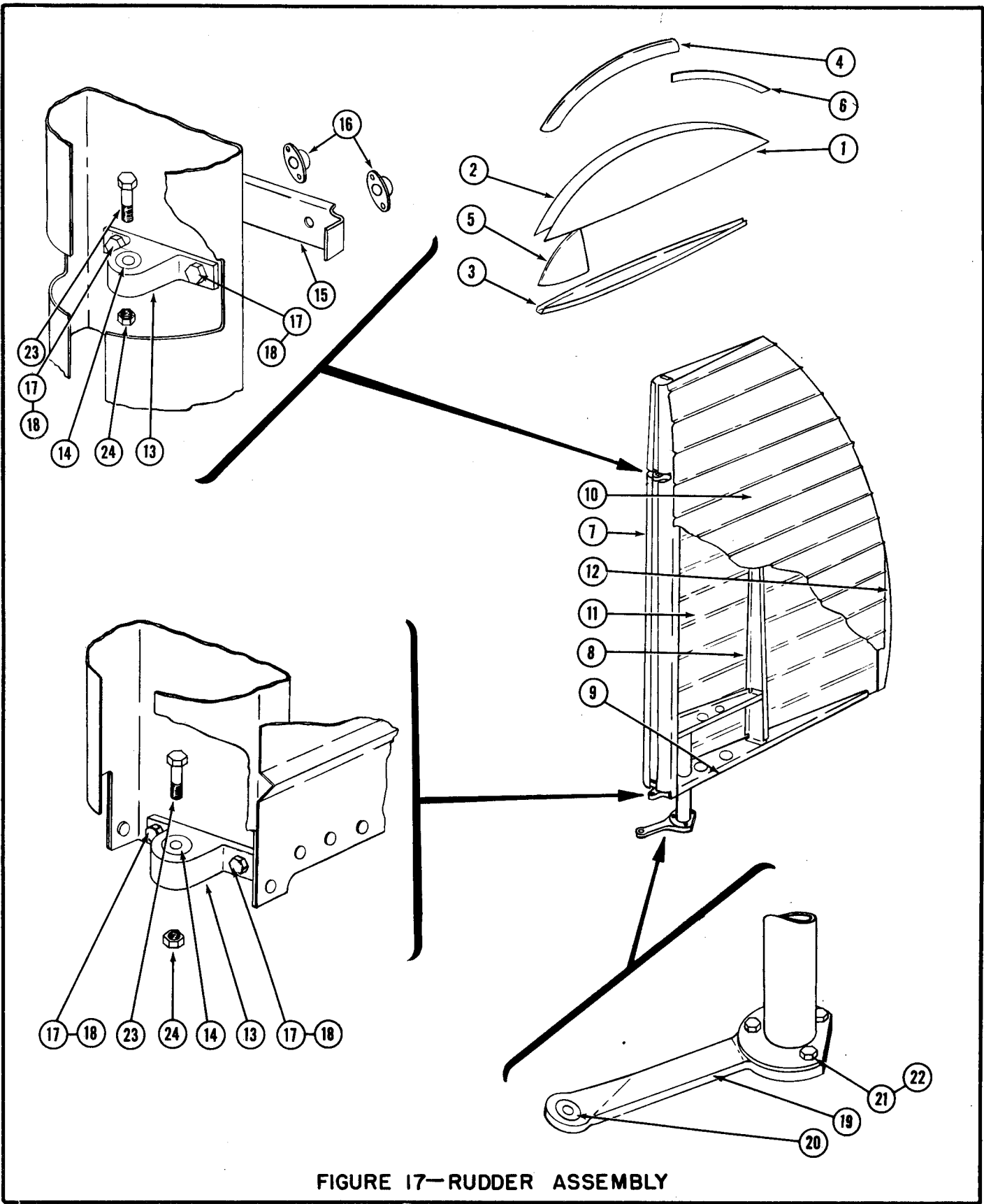


FIGURE 17—RUDDER ASSEMBLY



ILLUSTRATED PARTS CATALOG

FIGURE 17

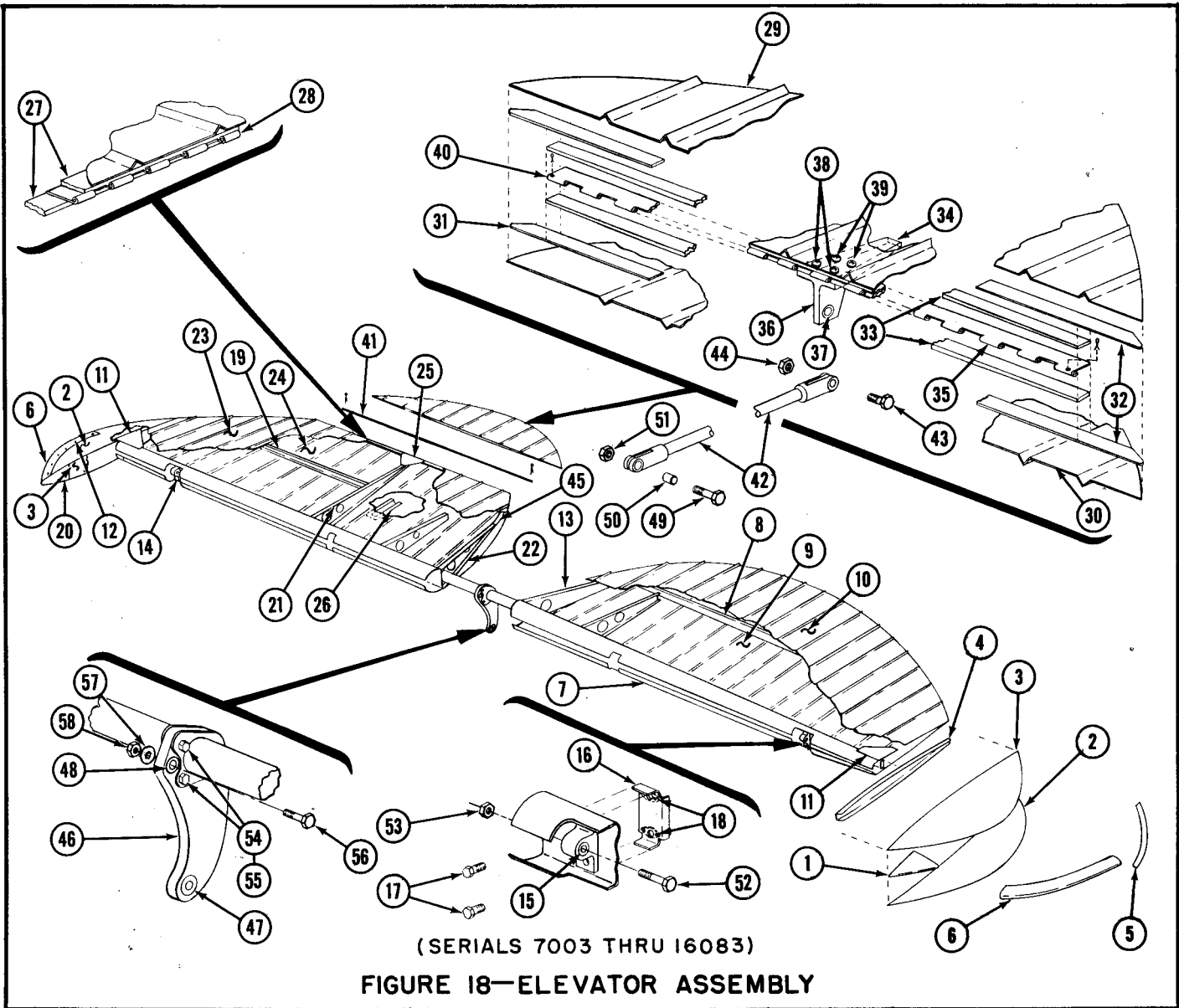
RUDDER ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS			
		1	2	3	4	5	6	190	195		
	0333000	Rudder	Assembly-	(see	figure	1	for	NHA)	Ref	Ref	
	0333000 CP	Rudder	Assembly	-	(corrosion	proofed)			1	1	
	0333000-11	Tip	Assembly	-	Rudder				1	1	
17-1	0333000-3		Skin	-	Rudder	tip	left		1	1	
-2	0333000-6		Skin	-	Rudder	tip	right		1	1	
-3	0333113		Rib	-	Rudder	tip			1	1	
-4	0333127		Leading	Edge	-	Rudder	tip		1	1	
-5	0333117		Weight	-	Rudder	tip	balance		1	1	
	NAS445-163-4-8		Rivet	-	(Attach	tip	leading	edge)	14	14	
-6	0333114		Stiffener	-	Rudder	tip			1	1	
-7	0333132		Spar	-	Rudder	front			1	1	
-8	0333115		Auxiliary	Spar	-	Rudder	rear		1	1	
-9	0333126		Rib	&	Torque	Tube	Assembly	-	Rudder	1	1
	0333000-12		Skin	Assembly	-	Rudder			1	1	
-10	0333000-4		Skin	-	Rudder	lower	left		1	1	
-11	0333000-5		Skin	-	Rudder	lower	right		1	1	
-12	0333116		Tab	-	Rudder				1	1	
-13	0333119		Hinge	-	Rudder				2	2	
-14	SIK-15		Bearing	-	Rafnr				2	2	
-15	0333128		Channel	-	Rudder	upper	hinge		1	1	
-16	AN366F1032		Nutplate						2	2	
-17	AN3-5A		Bolt	-	Attach	hinge			4	4	
-18	AN365-1032		Nut						2	2	
-19	0310160		Pylon	-	Rudder	control			1	1	
-20	KS4		Bearing						1	1	
-21	AN4-7A		Bolt	-	(Pylon	to	torque	tube)	3	3	
-22	AN365-428		Nut						3	3	
-23	AN4-11A		Bolt	-	(Rudder	hinge	to	fin	brackets)	2	2
-24	AN365-428		Nut						2	2	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG



(SERIALS 7003 THRU 16083)  
**FIGURE 18-ELEVATOR ASSEMBLY**

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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

FIGURE 18

ELEVATOR ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS		
		1	2	3	4	5	6	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

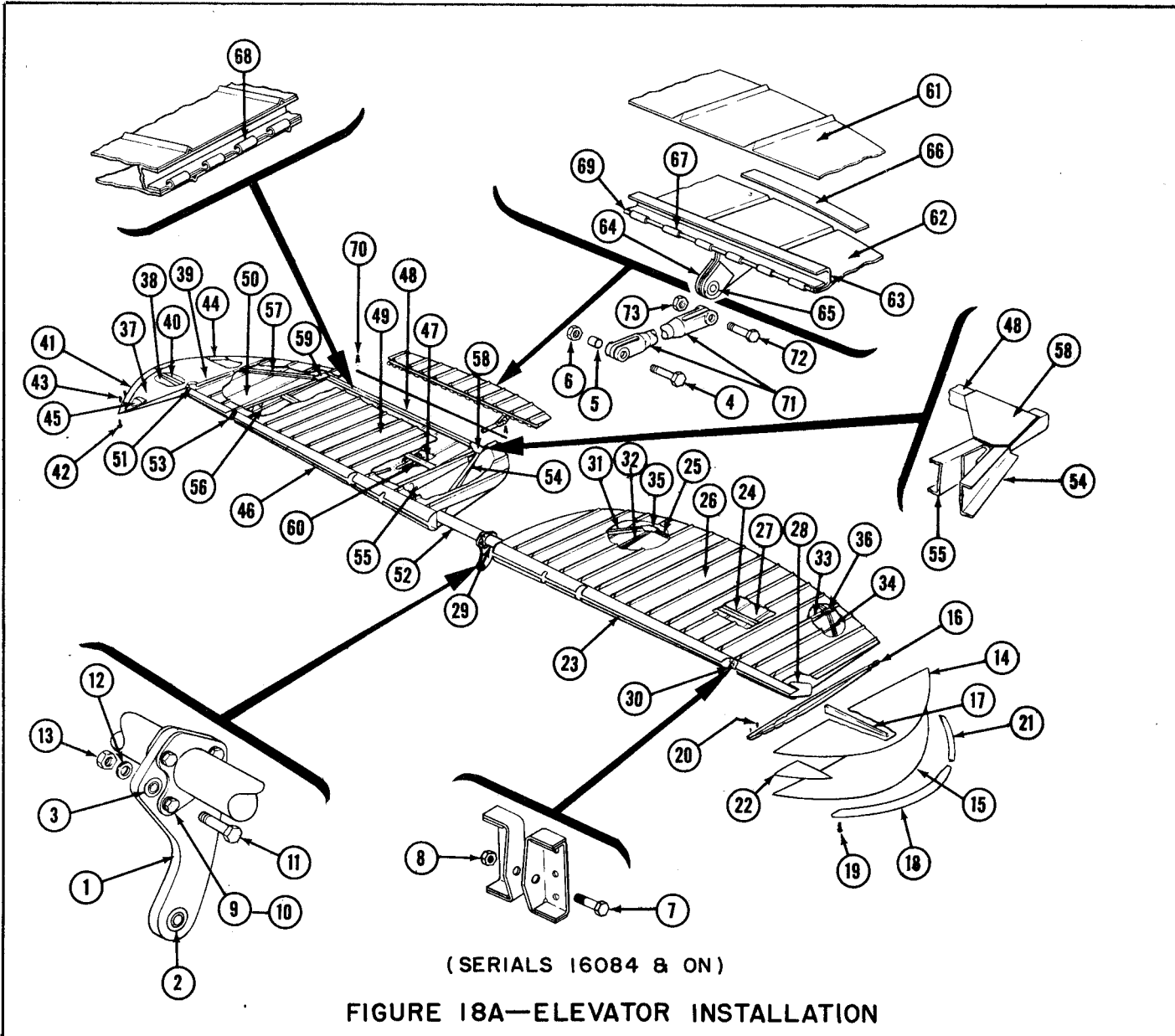


FIGURE 18A—ELEVATOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	No Number	Elevator Installation - (Serial 16084 & on) (Q330001 Ref) (see figure 1 for NHA)		Ref
18A-1	0310262	Pylon Assembly - Elevator		1
-2	KS4	Bearing - (Fafnir)		1
-3	AR4-1	Bearing - (Torrington)		1
-4	AR4-7A	Bolt - (Attach push-pull tube to actuator)		1
-5	0334124	Bushing - (Tab push-pull tube)		1
-6	AN365-428	Nut - (Attach push-pull tube to actuator)		1
-7	AN4-11A	Bolt - (Attach elevator at outboard hinge)		2
-8	AN365-428	Nut - (Attach elevator at outboard hinge)		2
-9	AN4-10A	Bolt - (Attach torque tubes to pylon)		4
-10	AN960-416	Washer - (Attach torque tubes to pylon)		4
-11	AN4-11A	Bolt - (Attach pylon to stabilizer hinge)		1
-12	AN960-416L	Washer - (Attach pylon to stabilizer hinge)		1
-13	AN365-428	Nut		5
	0334201-1	Elevator Assembly - Left		1
	0334201-51	Tip Assembly - Left elevator		1
-14	0334201-21	Skin - Left elevator tip upper		1



## ILLUSTRATED PARTS CATALOG

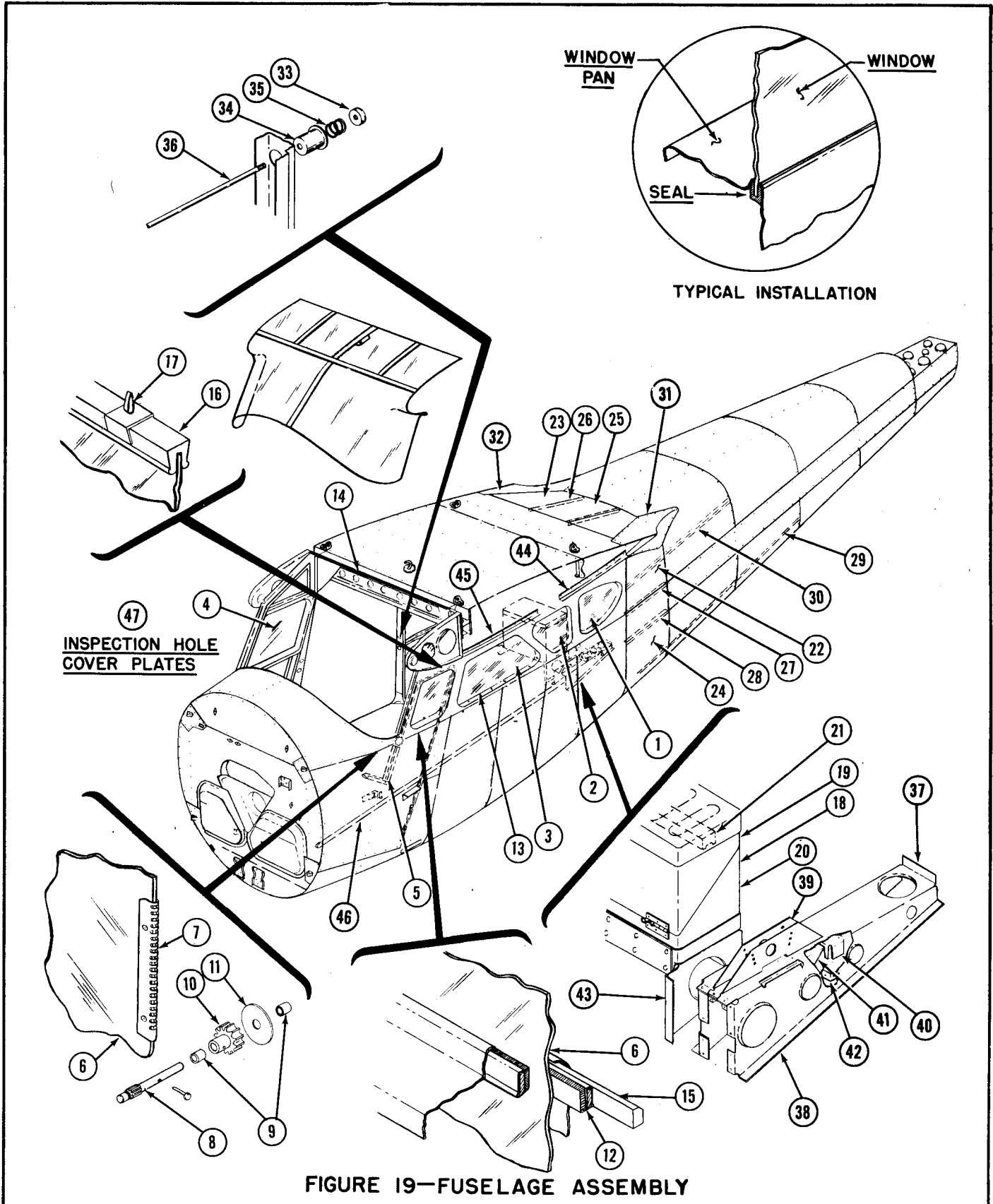
FIGURE 18A

ELEVATOR ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
18A-15	0334201-22						Skin - Left elevator tip lower		1
-16	0334201-8						Rib - Elevator tip		1
-17	0334201-10						Rib - Elevator tip		1
-18	0334201-12						Leading Edge - Elevator tip		1
-19	CR163C-4-8						Rivet + Cherry (attach tip leading edge)		13
-20	CR163C-4-4						Rivet + Cherry (attach tip leading edge)		2
-21	0334201-11						Stiffener - Elevator tip rear		1
-22	0334223-1						Weight - Left elevator		1
-23	0334201-3						Spar Assembly - Elevator front		1
-24	0334225						Auxiliary Spar - Elevator center		1
-25	0534116-4						Auxiliary Spar - Elevator rear		1
-26	0334201-17						Skin - Left elevator upper		1
-27	0334201-19						Skin - Left elevator lower		1
-28	0334201-15						Plate - Elevator tip doubler		2
-29	0334222-1						Torque Tube Assembly - Left elevator		1
-30	0334224-1						Hinge - Elevator outboard		2
-31	0334201-5						Rib - Elevator canted inboard		1
-32	0334201-6						Rib - Elevator inboard		1
-33	0334201-7						Rib - Elevator outboard		1
-34	0334201-9						Rib - Elevator canted outboard		1
-35	0334201-13						Plate - Inboard doubler		2
	0334201-16						Clip		1
-36	0334201-14						Plate - Outboard doubler		2
	0334201-2						Elevator Assembly - Right		1
	0334201-50						Elevator Assembly - Right (less tab)		1
	0334201-52						Tip Assembly - Right elevator		1
-37	0334201-22						Skin - Right elevator tip upper		1
-38	0334201-21						Skin - Right elevator tip lower		1
-39	0334201-8						Rib - Elevator tip		1
-40	0334201-10						Rib - Elevator tip		1
-41	0334201-12						Leading Edge - Elevator tip		1
-42	CR163C-4-8						Rivet + Cherry (attach tip leading edge)		13
-43	CR163C-4-4						Rivet + Cherry (attach leading edge to weight)		2
-44	0334201-11						Stiffener - Elevator tip rear		1
-45	0334223-2						Weight - Right elevator		1
-46	0334201-3						Spar Assembly - Elevator front		1
-47	0334225						Auxiliary Spar - Elevator center		1
-48	0534116-4						Auxiliary Spar - Elevator rear		1
-49	0334201-18						Skin - Right elevator upper		1
-50	0334201-20						Skin - Right elevator lower		1
-51	0334201-15						Plate - Elevator tip doubler		2
-52	0334222-2						Torque Tube Assembly - Right elevator		1
-53	0334224-1						Hinge - Elevator outboard		2
-54	0334201-5						Rib - Elevator canted inboard		1
-55	0334201-6						Rib - Elevator inboard		1
-56	0334201-7						Rib - Elevator outboard		1
-57	0334201-9						Rib - Elevator canted outboard		1
-58	0334201-13						Plate - Inboard doubler		2
	0334201-16						Clip		1
-59	0334201-14						Plate - Outboard doubler		2
-60	0434114						Cover - Elevator push-pull tube		1
	0534101-14						Tab Assembly - Right elevator		1
-61	0534101-7						Skin - Tab upper		1
-62	0534101-8						Skin - Tab lower		1
-63	0534116-3						Spar - Tab		1
-64	0334128						Horn Assembly - Tab		1
-65	PN-3A						Bearing - Tab horn (Torrington)		1
-66	0534101						Doubler - Tab rear		1
-67	0534101-11						Hinge Half		1
-68	0534101-12						Hinge Half		1
-69	0534101-15						Pin - Hinge		1
-70	AN381-1-8						Cotter Pin - Secure hinge pin)		2
-71	0334109-8						Tube Assembly - Tab push-pull		1
-72	AN3-7A						Bolt - (Attach tube to tab horn)		1
-73	AN365-1032						Nut - (Attach tube to tab horn)		1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE







## 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	Pan - Rear window left	1	1
	0311237-1	Pan - 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	Pan - Rear center window left	1	1
	0311238-1	Pan - 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	Pan - 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	Pan - 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.) (see figure 26)	1	1
-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	49020E26	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 - Frnt section floorboard inspection	3	3
	0353111						Grommet Installation - Firewall (see figure 24)	1	1

FIGURE 20

FUSELAGE - FORWARD SECTION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	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
-18	0311144						Bulkhead - Fuselage forward section (Sta. 50.00)	1	1
	NAS444-5-3						Nut - (Tinnerman A6195 8Z 3)	2	2
-19	0311147						Bulkhead Assembly - Forward section (Sta. 65.1875)	1	1
	NAS444-5-3						Nutplate - (Tinnerman A6195-8Z-3)	2	2
	AN366F1032						Nutplate	3	3
-20	0311163						Bulkhead Assembly - Fuselage forward section (Sta. 81.281)	1	1
-21	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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

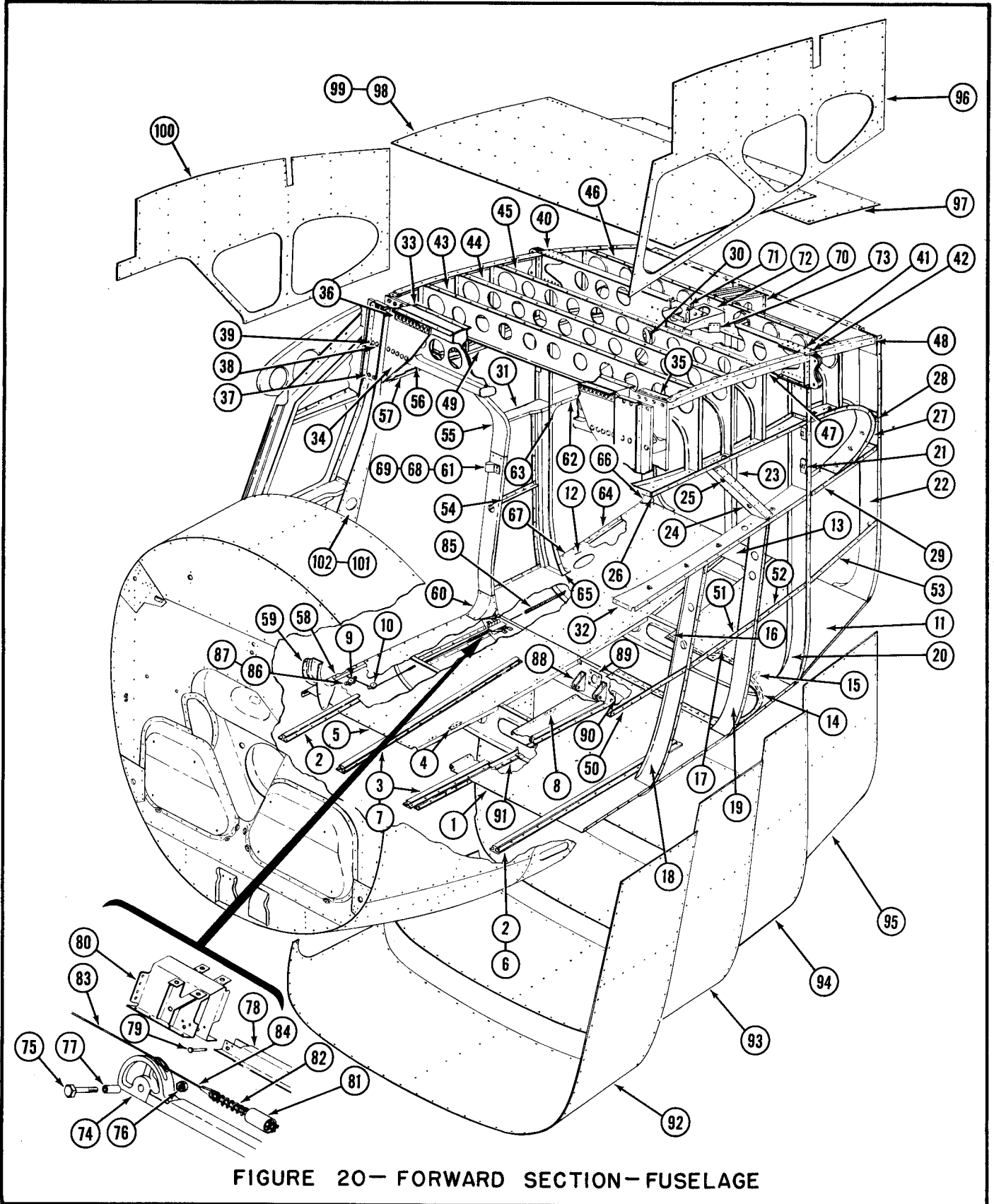


FIGURE 20— FORWARD SECTION— FUSELAGE



## ILLUSTRATED PARTS CATALOG

FIGURE 20

FUSELAGE - FORWARD SECTION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	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 Al784-6Z-3)	2	2
-26	0311227						Channel Assembly - Left center window	1	1
	NAS395-6-3						Nut - (Tinnerman Al784-6Z-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 Al784-6Z-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 Al784-6Z-3)	1	1
-32	0311169						Channel Assembly - Cabin window left	1	1
	NAS395-6-3						Nut - (Tinnerman Al784-6Z-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
-38	NAS178-12-51						Rivet - Hi-shear	4	4
-39	NAS178-12-52						Rivet - Hi-shear	2	2
	NAS179-12						Collar - Rivet	36	36
-40	0311224-8						Spar Assembly - Rear fuselage	1	1
-41	NAS178-8-6						Rivet - Hi-shear	8	8
	NAS179-8						Collar - Rivet	8	8
-42	NAS178-6-6						Rivet - hi-shear	8	8
	NAS179-6						Collar - Rivet	8	8
	AN4-6A						Bolt - (Attach spar to bulkhead)	8	8
	AN365-428						Nut	8	8
-43	0311220						Headliner - Cabin top (Sta. 57.68)	1	1
-44	0311321						Headliner Assembly - Cabin top (Sta. 66.18)	1	1
	0311233						Clip - Clamp mounting	1	1
-45	0311222						Headliner - Cabin top (Sta. 73.60)	1	1
-46	0311223						Headliner - Cabin (Sta. 92.903)	1	1
-47	0311265						Stringer - Cabin top forward left	1	1
	0311265-1						Stringer - Cabin top forward right	1	1
-48	0311232						Stringer - Cabin top rear left	1	1
	0311232-1						Stringer - Cabin top rear right	1	1
-49	0311270						Frame Assembly - Window upper right	1	1
	NAS395-6-3						Nut - (Tinnerman Al784-6Z-3)	2	2
-50	0311000-8						Angle - Stiffener (Sta. 28.375 to 50.0)	1	1
-51	0311000-7						Angle - Stiffener (Sta. 50.0 to 65.1875)	1	1
-52	0311000-6						Angle - Stiffener (Sta. 65.1875 to 81.281)	1	1
-53	0311000-5						Angle - Stiffener (Sta. 81.281 to 102.0)	1	1
-54	0311000-32						Angle - Stiffener (Sta. 65.1875)	1	1
-55	0311235						Jamb Assembly - Cabin door upper rear	1	1
	0311475						Lug - Window glass retainer	2	2
-56	0311228						Jamb - Cabin door top	1	1
-57	0311346						Fillet - Cabin door jamb upper	1	1
-58	0311194						Jamb - Cabin door lower	1	1
-59	0311293						Filler - Cabin door jamb lower front	1	1
-60	0311292						Fillet - Cabin door jamb lower rear	1	1
-61	0311319						Plate - Cabin door latch strike	1	1
	AN366F832						Nutplate	2	2
	AN526-832R6						Screw	2	2
-62	0311112-1						Jamb - Baggage door upper	1	1
-63	0311291						Fillet - Baggage door upper	2	2
-64	0311116						Jamb - Baggage door lower	1	1
-65	0311290						Fillet - Baggage door lower forward	1	1
-66	0311289						Fillet - Baggage door lower rear	1	1
	0311316						Bracket - Baggage door hinge lower	1	1
	0311315-3						Bracket - Baggage door hinge upper	1	1
-67	0311756						Seal - Baggage door	1	1
-68	0311319						Strike - Baggage door catch	1	1
-69	AN526-832R6						Screw - (Attach strike plate)	2	2
-70	0310217						Bracket - Aileron pulley cabin top left	1	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

FIGURE 20

FUSELAGE FORWARD SECTION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
			1	2
			1	1
20-71	0310217-1	Bracket - Aileron pulley cabin top right	2	2
	0310215	Bracket - Aileron pulley cabin top upper	1	1
-72	0310226	Bracket - Aileron pulley cabin top lower	1	1
-73	0311720	Bracket Assembly - Dome light mounting	1	1
	0311720-3	Bracket - Dome light mount	1	1
	0311720-5	Light - Dome	1	1
-74	0311431	Step Assembly - Cabin	1	1
-75	AN4-13A	Bolt - (Attach step)	1	1
-76	AN365-428	Nut - (Attach step)	1	1
-77	0311549	Bushing - Cabin step	1	1
-78	0311277-1	Channel - Step recess	1	1
-79	AN394-33	Pin - Clevis	1	1
-80	0311279	Bracket Assembly - Cabin step	1	1
-81	0311445	Tube - Retractable step spring	1	1
-82	0311441	Spring Assembly - Retractable step forward	1	1
	AN393-7	Pin - Clevis	1	1
	AN380-2-1	Pin - Cotter	1	1
-83	0310207-15	Cable Assembly - Retractable step return	2	2
-84	0310207-14	Cable Assembly - Retractable step front	1	1
-85	0311442-6	Spring - Retractable step rear	1	1
	AN415A	Pin - Lock	1	1
-86	A-138	Pulley - (Formica)	2	2
	A-210-1A	Pulley - (Alternate)	2	2
	NAS382-1	Bushing - Pulley	2	2
	AN960-416L	Washer	2	2
-87	AN23-13A	Bolt - (Attach pulley)	2	2
	AN365-1032	Nut - Self-locking	2	2
-88	0310162	Bracket - Control pulley (Sta. 65,1875)	2	2
	AN3-3A	Bolt	2	2
	AN365-1032	Nut	2	2
-89	0310212	Fairlead - Push-pull tube upper	1	1
	0310191	Fairlead - Push-pull tube lower	1	1
	AN515-8R12	Screw	2	2
	AN365-832	Nut	2	2
-90	0412467	Bracket - Elevator tab control pulley	1	1
-91	0311000-3	Angle - Fuselage forward section	1	1
-92	0311000-23	Skin - Landing gear bulkhead to station 50.0	1	1
-93	0311000-10	Skin - Fuselage forward section (Sta. 50.0 to 65,1875)	1	1
-94	0311000-22	Skin - Fuselage forward section (Sta. 65,1875 to 81,281)	1	1
-95	0311000-11	Skin - Fuselage forward section (Sta. 80,281 to 102,0)	1	1
-96	0311000-35	Skin - Cabin windows left	1	1
-97	0311000-26	Skin - Cabin top rear	1	1
-98	0311000-27	Skin - Cabin top forward (Eff. serials 7003 thru 7398)	1	1
-99	0311000-54	Skin - Cabin top forward (Eff. serials 7399 & on)	1	1
-100	0311000-34	Skin - Cabin windows right	1	1
-101	0300001-4	Skin - Doorpost inner left	1	1
-102	0300001-3	Skin - Doorpost inner	1	1

FIGURE 21

FUSELAGE - FRONT SECTION

			1	1
21-1	0311000-64	Structure Assembly - Fuselage front section (includes oil tank)	1	1
	0311240	Oil Tank Assembly - (See figure 67 for breakdown)	1	1
	0311240-22	Oil Tank (Less dip stick & filler neck)	1	1
	0311240-14	Filler Neck Assembly - (See figure 67)	1	1
	0311360	Dip Stick Assembly - (See figure 67)	1	1
-2	0311242	Door - Oil tank access	1	1
	0311242-3	Door - Oil tank upper	1	1
-3	0311242-7	Hinge Half - Lower	1	1
-4	0311242-8	Hinge Half - Upper	1	1
	0311242-9	Pin - Hinge	1	1
-5	0311242-4	Plate - Oil tank cover	1	1
	0311482-1	Decal - Oil heater	1	1
	0311482-2	Decal - Oil capacity	1	1
-6	H-4600-.032-.064	Latch - Hartwell flush	1	1
	0311240-20	Shim - Oil tank	AR	AR
-7	0311241	Ring - Oil tank mount	1	1
	0311241-3	Ring - Oil tank mount	1	1
	NAS444-14-3	Nut - (Tinnerman A6162-8Z-3)	3	3
	0311000-59	Structure Assembly - Fuselage front section (less oil tank) (see figure 20 for NHA)	Ref	Ref
-8	0353000-3	Firewall Assembly	1	1
-9	0353000-32	Sheet - Firewall lower	1	1
-10	0353000-4	Sheet - Firewall center	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

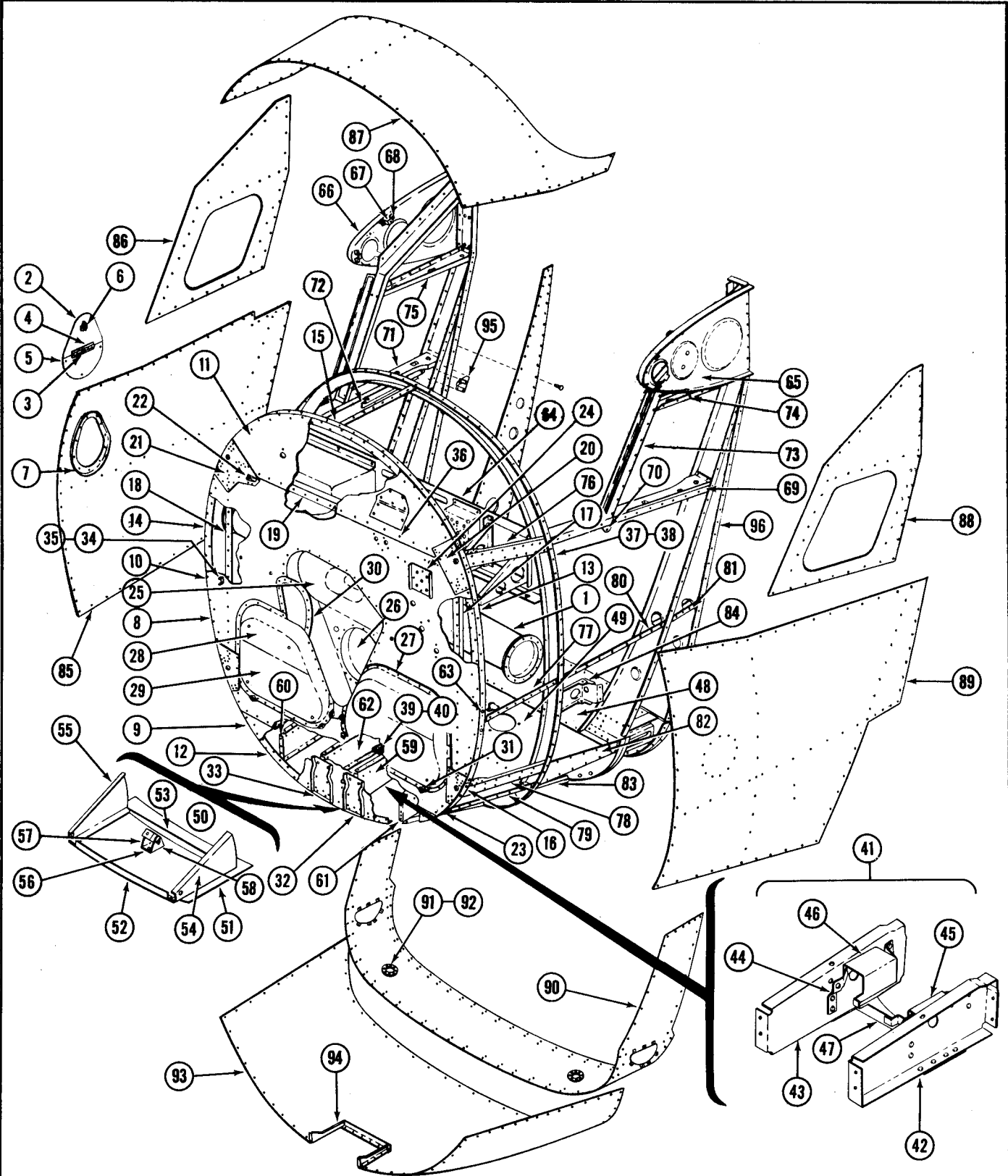


FIGURE 21- FRONT SECTION- FUSELAGE



## 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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

FIGURE 22

BULKHEAD ASSEMBLY - LANDING GEAR (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
-17	0311156-11							1	1
-18	0311218-3							1	1
	0311218							1	1
-19	0311216							1	1
-20	0311130-5							1	1
-21	0311219							1	1
-22	0311217							1	1
	NAS444-2-3							2	2
-23	0311208							1	1
-24	0311208-3							1	1
-25	0310233							2	2
	AN520-10-8							2	2
	AN365-1032							2	2
-26	NAS178-6-4							60	60
	NAS179-6							60	60
-27	NAS178-6-5							52	52
	NAS179-6							52	52
-28	NAS178-6-6							4	4
	NAS179-6							4	4
-29	0311234							1	1

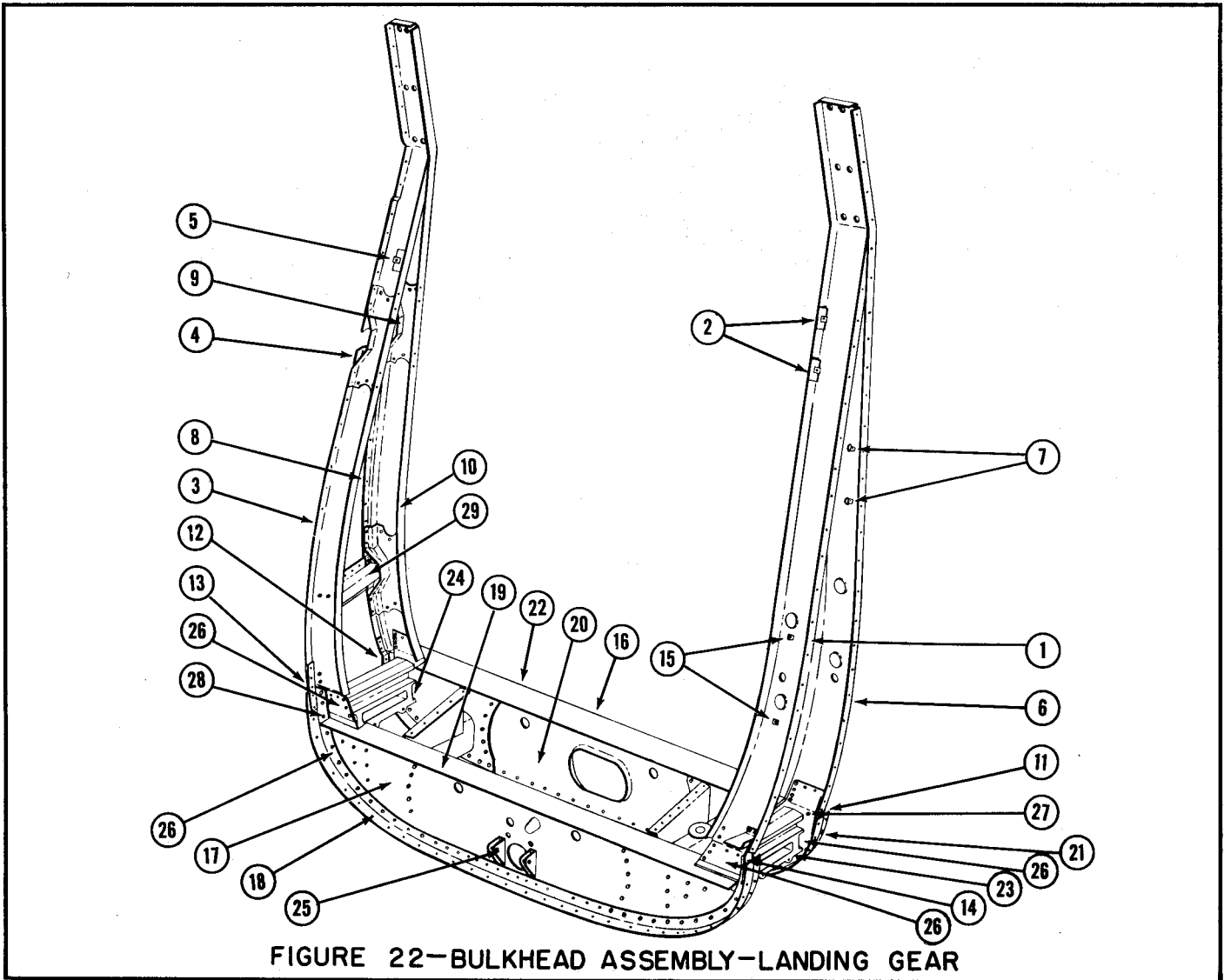


FIGURE 22-BULKHEAD ASSEMBLY-LANDING GEAR

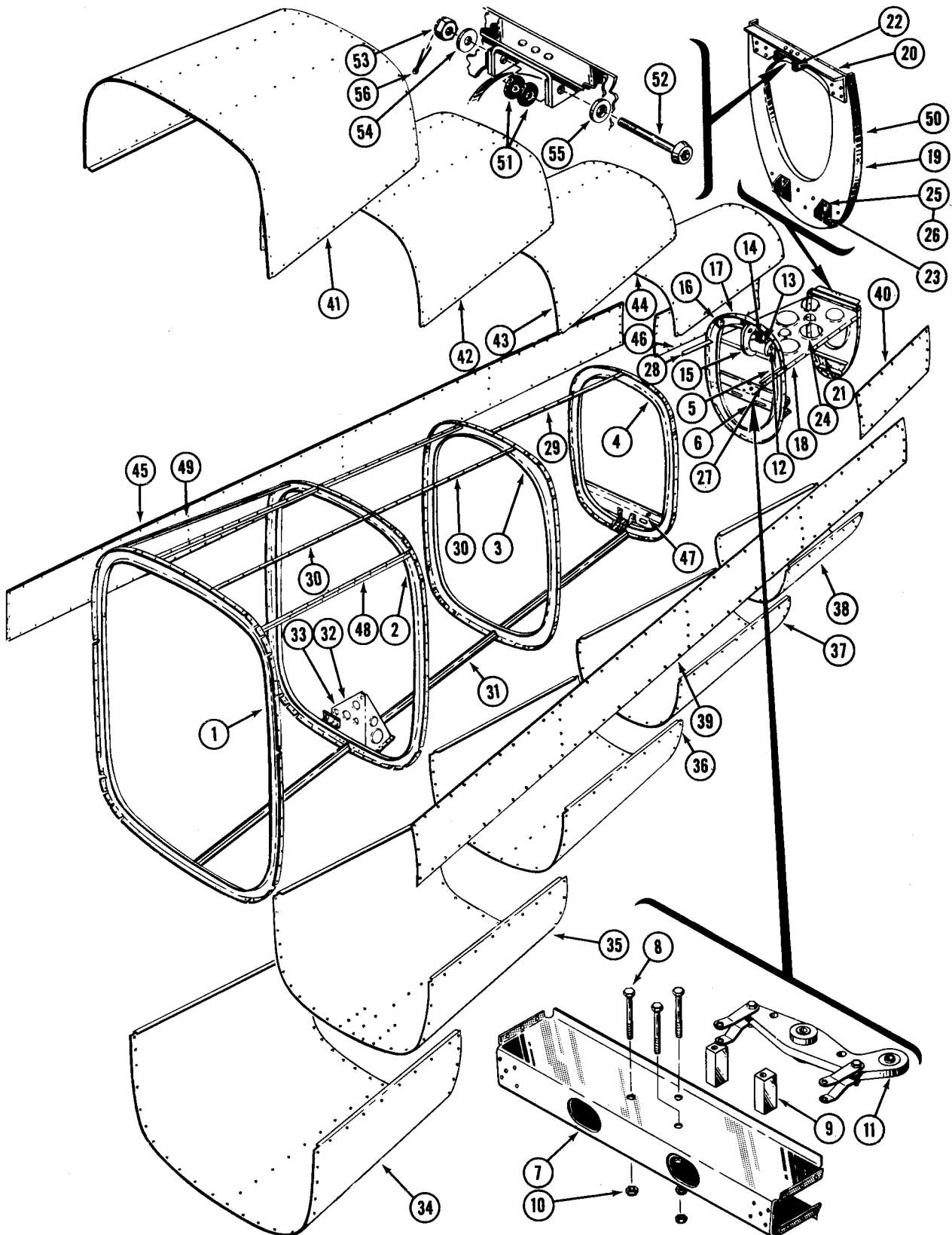


FIGURE 23-SECTION ASSEMBLY-FUSELAGE AFT



## ILLUSTRATED PARTS CATALOG

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)		1 1
23-1	0312122	Bulkhead - Fuselage aft section (Sta. 120.375)		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
-50	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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

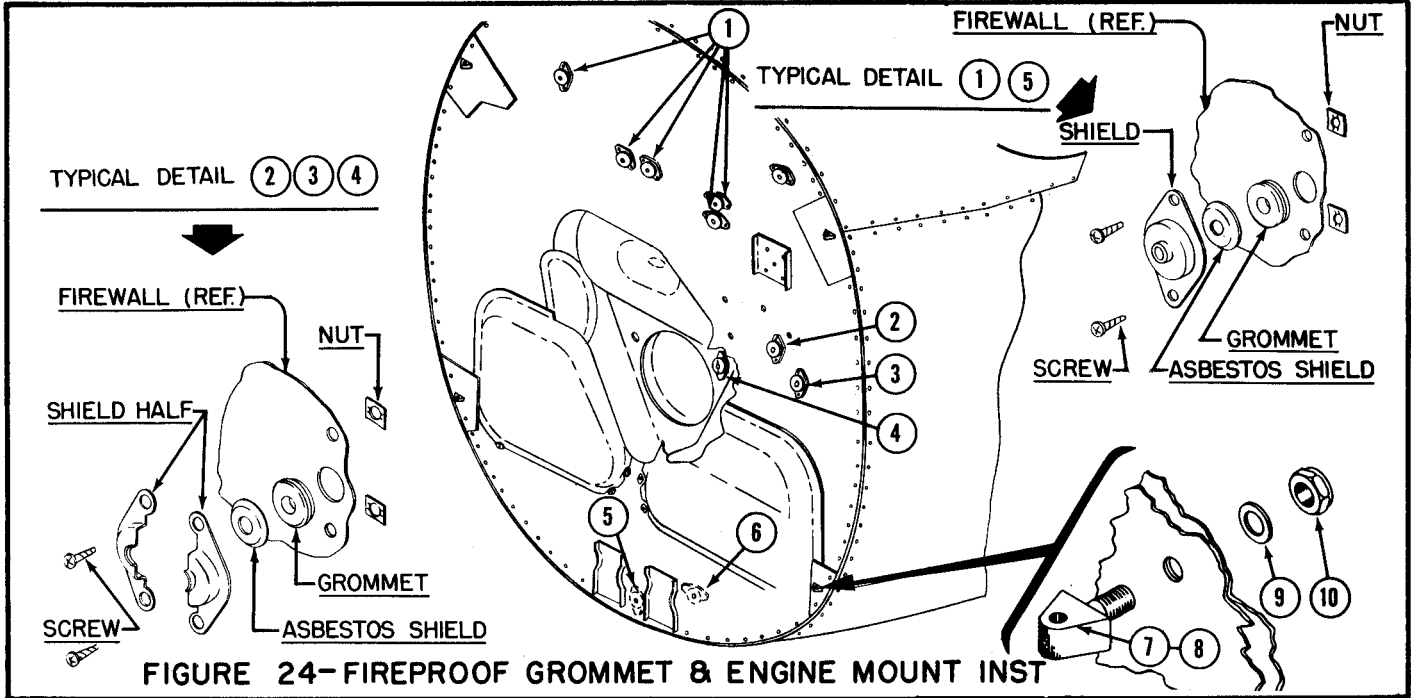


FIGURE 24-FIREPROOF GROMMET & ENGINE MOUNT INST

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
	NAS446-4-3	Nut - (Tinnerman A1778-8Z-3)							2	2
	PK76XZ-8-6	Screw							2	2
-7	0351107-3	Lug - Engine mount left							2	2
-8	0351107-4	Lug - Engine mount right							2	2
-9	AN960-1016	Washer							4	4
-10	AN365-1018C	Nut - (Attach lug)							4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

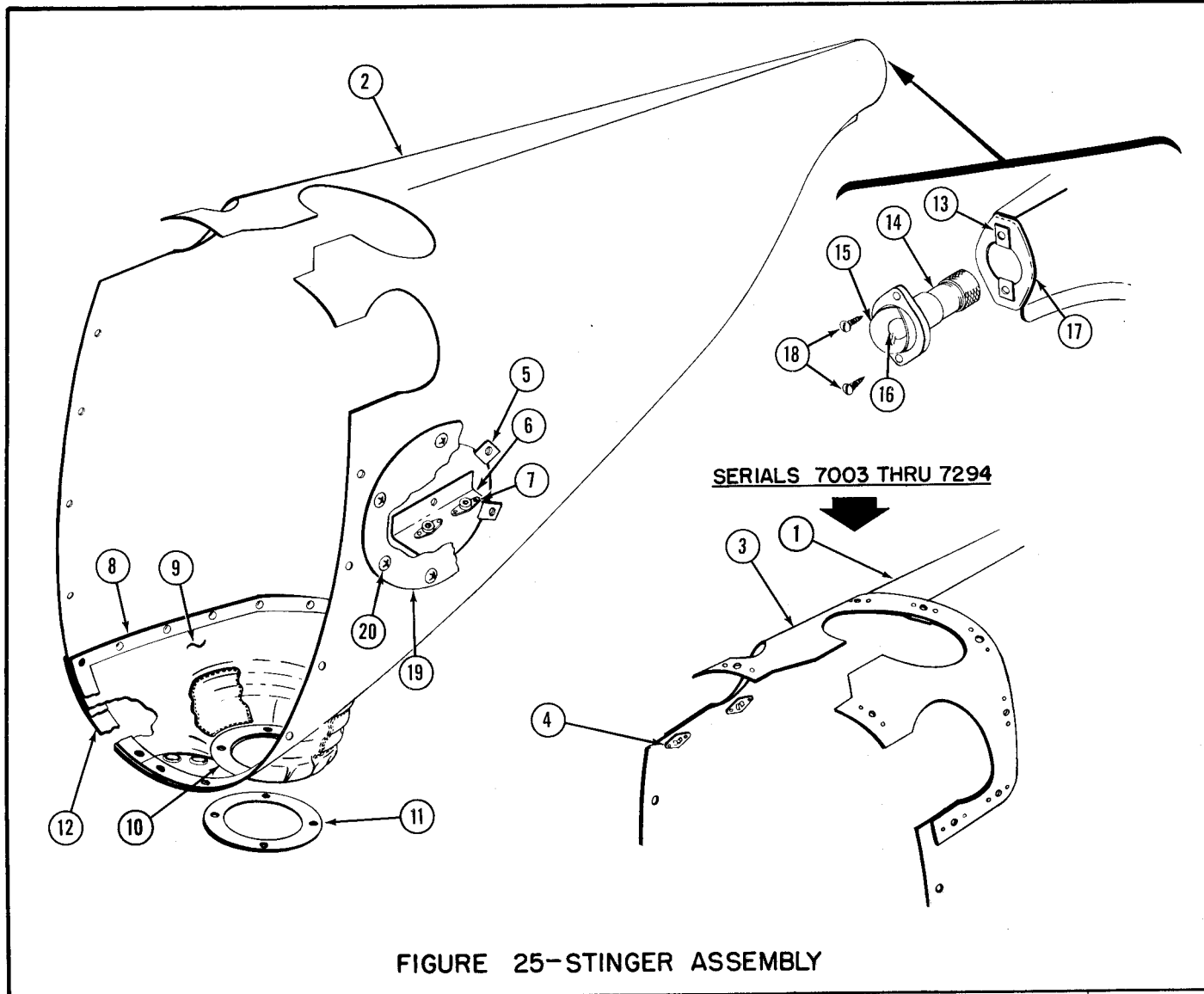


FIGURE 25-STINGER ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
25-1	0312140	Stinger Assembly - Fuselage (Eff. serials 7003 thru 7294)	1	1
-2	0312140-21	Stinger Assembly - Fuselage (Eff. serials 7295 & on)	1	1
-3	0312140-3	Plate - Tailwheel strut inspection (Eff. serials 7003 thru 7294)	1	1
-4	NAS445-5	Nutplate - (Tinnerman A6195-8Z-3) (Eff. serials 7003 thru 7294)	11	11
-5	NAS395-23-3	Nut - (Tinnerman A1794-10Z-3)	6	6
-6	0312140-18	Bracket - Tailwheel steering cable	1	1
-7	AN366F832	Nut	4	4
	AN526-832R9	Screw	4	4
-8	0312140-9	Doubler - Tailwheel boot	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-8-150P 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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

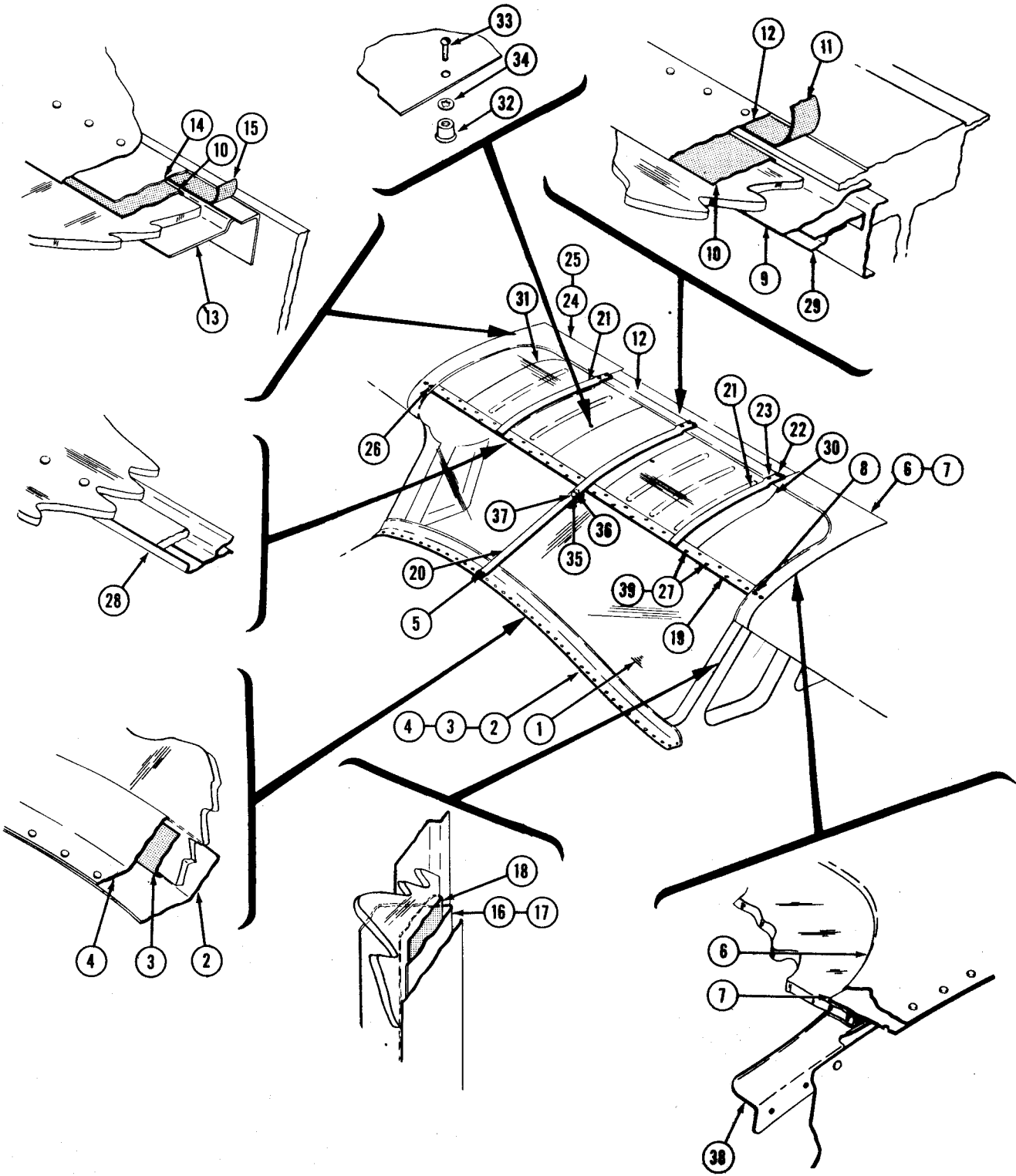


FIGURE 26-WINDSHIELD & SUNSHADE INSTALLATION



ILLUSTRATED PARTS CATALOG

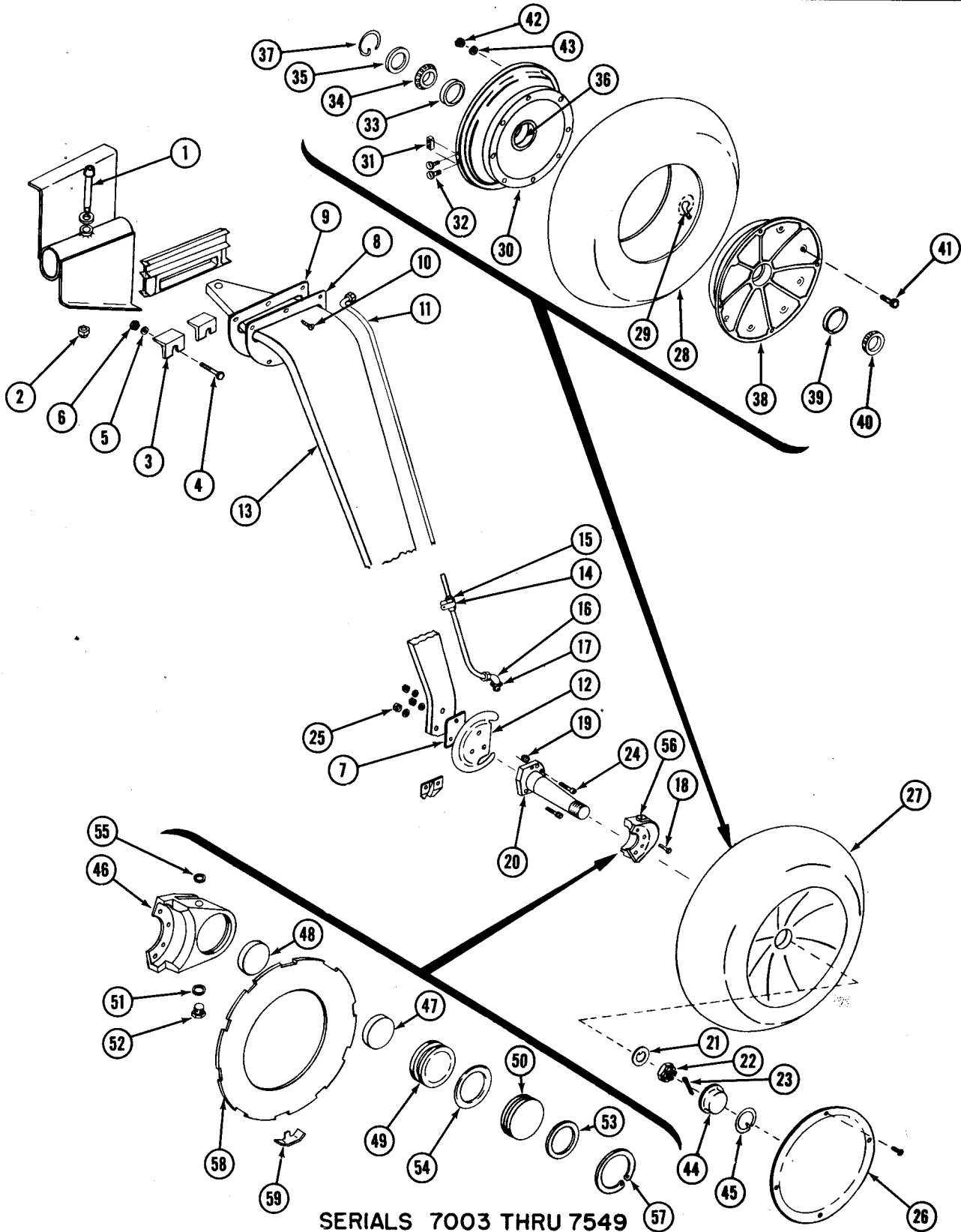
FIGURE 26

WINDSHIELD AND SUNSHADE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
								190	195
								1	2
		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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



SERIALS 7003 THRU 7549  
 FIGURE 27-LANDING GEAR INSTALLATION





## ILLUSTRATED PARTS CATALOG

FIGURE 27

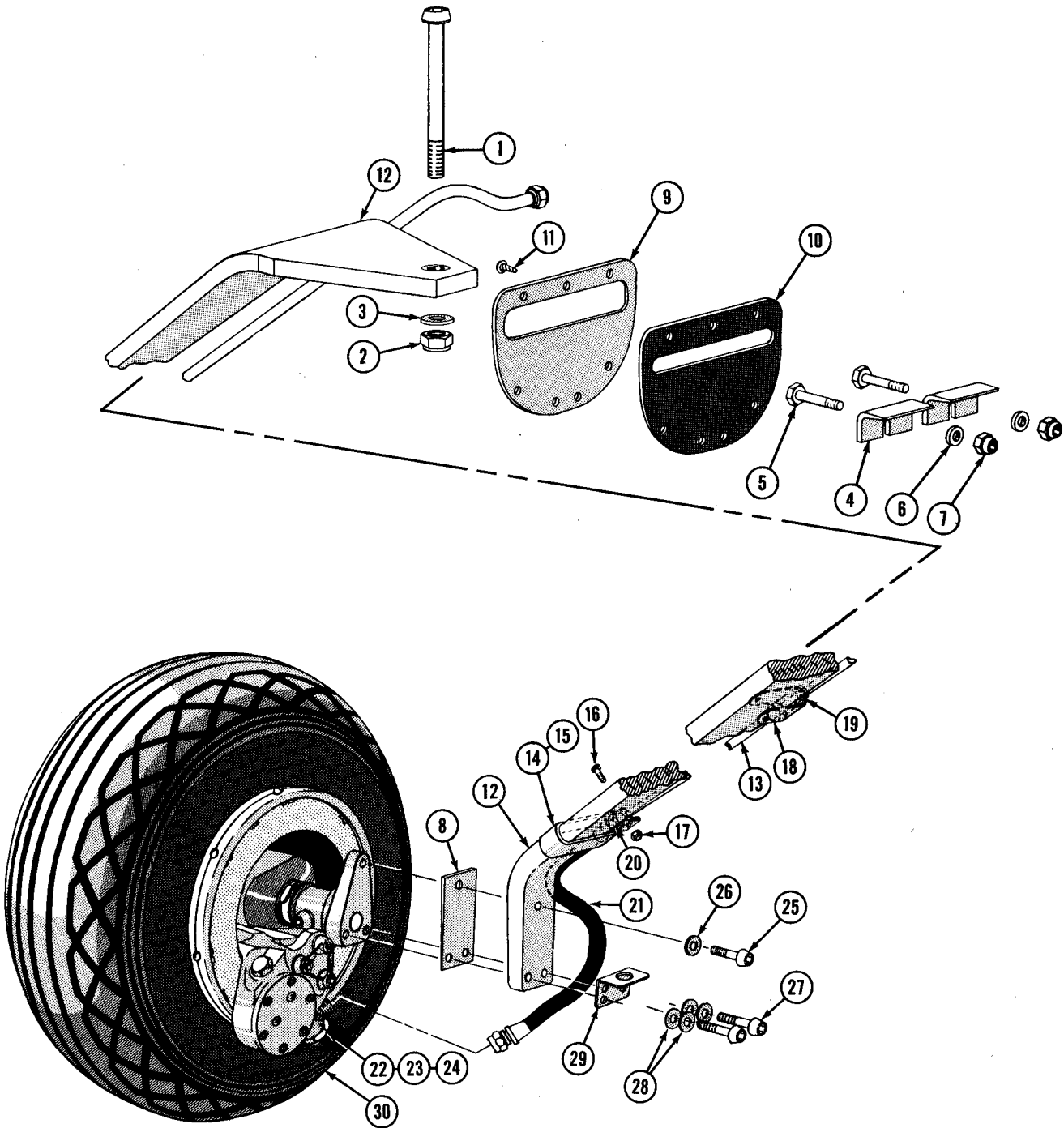
LANDING GEAR INSTALLATION (EFF. SERIALS 7003 THRU 7549)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Landing Gear Installation (Serial 7003 thru 7549)	1	1
27-1	AN10-46A	Bolt - (Attach landing gear spring to fuselage)	2	2
-2	AN365-1018C	Nut - (Attach landing gear spring to fuselage)	2	2
	AN960-1016	Washer - (Use as required, maximum 8)	AR	AR
-3	0441115	Wedge - Landing gear support (Eff. serials 7003 thru 7549)	4	4
-4	AN416A	Bolt - (Attach wedge) (Eff. serials 7003 thru 7549)	4	4
-5	AN960-416L	Washer - (Attach wedge)	4	4
-6	AN365-428	Nut - (Attach wedge)	4	4
-7	0341116-1	Shlm - Landing gear (1° Toe-out with thick side fwd)(Discontinued)	AR	AR
	0341116-2	Shlm - Landing gear (2° Toe-out with thick side fwd)(Discontinued)	AR	AR
	0341116-3	Shlm - Ldg gear (1° Toe-out with thick side fwd)(Replaces 0341116-1)	AR	AR
	0341116-4	Shlm - Ldg gear (2° Toe-out with thick side fwd)(Replaces 0341116-2)	AR	AR
	0341116-6	Shlm - Landing gear (1° Toe-in with thick side aft)	AR	AR
	0341116-7	Shlm - Landing gear (2° Toe-in with thick side aft)	AR	AR
	0341116-5	Shlm - Landing gear (1° positive camber)	AR	AR
-8	0311358	Plate - Landing gear fillet	2	2
-9	0311359	Seal - Landing gear fillet	2	2
-10	PK76XZ-8-6	Screw (Attach plate)	14	14
	0341100	Landing Gear Assembly - Main left	1	1
	0341100-1	Landing Gear Assembly - Main right	1	1
-11	0300106-4	Brake Line - Landing gear (used on left gear only)	1	1
	0300106-5	Brake Line - Landing gear (used on right gear only)	1	1
-12	0341126	Plate - Brake disc cover (Used on left gear only)	1	1
	0341126-1	Plate - Brake disc cover (Used on right gear only)	1	1
-13	0341110	Spring - Main landing gear	1	1
-14	0341117	Bracket - Brake line	1	1
-15	0341115	Hose - Brake line protector	1	1
-16	AN837-4D	Elbow - Flared tube and universal 45°	1	1
	AN902-4	Gasket - Flared tube universal fitting	1	1
-17	AN924-4D	Nut - Flared tube, bulkhead and universal fitting	1	1
-18	AN5-13A	Bolt (Attach brake)	3	3
-19	AN365-524	Nut - (Attach brake)	3	3
-20	0341112	Axle - Main landing gear	1	1
-21	0341113	Washer - Axle	1	1
-22	AN7502-15	Nut - Axle	1	1
-23	AN380-4-6	Pin - Cotter	1	1
-24	AN6-20A	Bolt - (Attach axle to spring)	3	3
-25	AN365-624C	Nut - (Attach axle to spring)	3	3
-26	0341003	Fairing Kit - Main wheel (GY 95-3844) (includes 4 screws)	1	1
-27	0341006	Wheel Assembly - Main landing gear (complete)	1	1
-28	0341006-11	Tire - Aircraft (6.50 x 10-4 ply)	1	1
-29	0341006-12	Tube - Aircraft (6.50 x 10)	1	1
	0341006-1	Wheel Assembly - (Goodyear 95-3238)	1	1
-30	0341006-2	Wheel Sub-Assembly - Inboard half (GY 95-3211)	1	1
-31	0341006-4	Key - Disc drive (GY 95-4234)	10	10
-32	0341006-5	Screw - Disc drive key (GY 9520656)	20	20
-33	0341006-6	Cup - Inboard bearing (GY 95-0386)	1	1
-34	0341006-9	Cone - Inboard bearing (GY 95-0389)	1	1
-35	0341006-13	Seal - Inboard bearing felt (GY 95-969)	1	1
-36	0341006-15	Ring - Felt retainer (GY 95-968)	2	2
-37	0341006-10	Lockwire - Inboard bearing (GY 95-1595)	1	1
-38	0341006-7	Wheel Sub-Assembly - Outboard half (GY 95-3212)	1	1
-39	0341006-16	Cup - Outboard bearing (GY 95-0231)	1	1
-40	0341006-17	Cone - Outboard bearing (GY 95-0222)	1	1
-41	AN4-12A	Bolt - (Assemble wheel halves)	8	8
-42	AN365-428	Nut - Self-locking	8	8
-43	AN960-416	Washer - (GY 95-0897)	8	8
-44	0341001	Hubcap - Main wheel (GY 95-2892)	1	1
-45	0341002	Lockwire - Hubcap (GY 95-2882)	1	1
	0341015-1	Brake Assembly - Single disc (GY 9520923)	1	1
-46	0341015-2	Housing - Brake cylinder (GY 9540156)	1	1
-47	0341015-3	Lining - Brake outboard (GY 95-3343)	1	1
-48	0341015-4	Lining - Brake inboard (GY 95-3341)	1	1
-49	0341015-5	Piston - Brake (GY 95-2666)	1	1
-50	0341015-6	Cylinder Head - Brake (GY 95-2899)	1	1
-51	0341015-7	Washer - Bleeder screw (GY 95-4486)	1	1
-52	AN51510R5	Screw - Bleeder	1	1
-53	AN6230-6	Seal - Cylinder head	1	1
-54	AN6227-33	Seal - Piston	1	1
-55	AN902-4	Gasket - Inlet plug	2	2
-56	AN814-4	Plug - Inlet	1	1
-57	NAS50-250	Lock Ring - (Truearc)	1	1
-58	0341012	Disc - Brake (GY 95-2569)	1	1
-59	0341013	Clip - Brake disc (GY 9510375)	4	4

GY Indicates Goodyear Tire &amp; Rubber Co.

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



SERIALS 7550 & ON  
FIGURE 28—CROSSWIND LANDING GEAR INSTALLATION



## ILLUSTRATED PARTS CATALOG

FIGURE 28

CROSS-WIND LANDING GEAR INSTALLATION SERIALS 7550 &amp; ON

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Cross-wind Landing Gear Installation (Eff. serials 7550 & on)	1	1
28-1	AN10-46A	Bolt - (Attach landing gear spring to fuselage)	2	2
-2	AN365-1018C	Nut - (Attach landing gear spring to fuselage)	2	2
-3	O310000-17	Washer - (Attach landing gear spring to fuselage) (Eff. serials 7699 & on)	2	2
-4	O441115	Wedge - Landing gear support (Eff. serials 7550 thru 7698)	4	4
	O441115-1	Wedge - Landing gear support (Eff. serials 7699 & on)	4	4
-5	AN4-16A	Bolt - (Attach wedge) (Eff. serials 7550 thru 7698)	4	4
	AN4-17A	Bolt - (Attach wedge) (Eff. serials 7699 & on)	4	4
-6	AN960-416L	Washer - (Attach wedge)	4	4
-7	AN365-428	Nut - (Attach wedge)	4	4
-8	O341116-3	Shim - Landing gear (1° Toe-out with thick side fwd)	AR	AR
	O341116-4	Shim - Landing gear (2° Toe-out with thick side fwd)	AR	AR
	O341116-6	Shim - Landing gear (1° Toe-in with thick side aft)	AR	AR
	O341116-7	Shim - Landing gear (2° Toe-in with thick side aft)	AR	AR
	O341116-5	Shim - Landing gear (1° Positive chamber)	AR	AR
-9	O311358	Plate - Landing gear fillet	2	2
-10	O311359	Seal - Landing gear fillet	2	2
-11	PK76XZ-8-6	Screw - (Attach plate)	14	14
	O341150	Landing Gear Assembly - Crosswind left (Eff. serials 7550 thru 7698)	1	1
	O341150-1	Landing Gear Assembly - Cross-wind right (Eff. serials 7550 thru 7698)	1	1
	O341150-9	Landing Gear Assembly - Crosswind left (Eff. serials 7699 & on)	1	1
	O341150-10	Landing Gear Assembly - Cross-wind right (Eff. serials 7699 & on)	1	1
-12	O341110	Spring - Landing gear (Eff. serials 7550 thru 7698)	1	1
	O341109-1	Spring - Landing gear left (Eff. serials 7699 & on)	1	1
	O341109-2	Spring - Landing gear right (Eff. serials 7699 & on)	1	1
-13	O300106-67	Line Assembly - Brake left (Eff. serials 7550 thru 7698)	1	1
	O300106-68	Line Assembly - Brake right (Eff. serials 7550 thru 7698)	1	1
	O300106-79	Line Assembly - Brake left (Eff. serials 7699 & on)	1	1
	O300106-80	Line Assembly - Brake right (Eff. serials 7699 & on)	1	1
-14	O341150-6	Clamp - Brake line (Eff. serials 7550 thru 7698)	1	1
-15	O341107	Clamp - Brake line (Eff. serials 7699 & on)	1	1
-16	AN526-832R10	Screw - (Attach clamp)	1	1
-17	AN365-832	Nut - (Attach clamp)	1	1
-18	O341117	Bracket - Brake line	1	1
-19	O341115	Tube - Brake line protector	1	1
-20	AN815-4D	Union - Flared tube	1	1
-21	MS28741-4-0100	Hose - Flexible	1	1
-22	AN776-D4	Elbow - Universal 90°	1	1
-23	AN775-4	Bolt - Universal fitting	1	1
-24	AN901-4C	Gasket - Metal tube connector seal	2	2
-25	NAS146DH-25	Bolt - (Attach collar to spring)	1	1
-26	NAS143-6C	Washer	1	1
-27	NAS146DH-28	Bolt - (Attach collar to spring)	2	2
-28	NAS143-6C	Washer	2	2
	AN960-616	Washer	4	4
	AN960-616L	Washer	2	2
-29	O341146	Lug - Towing (Eff. serials 7413 & on)	1	1
-30	O341150-8	Wheel Assembly - Cross-wind (see figure 29 for breakdown)	1	1
	O341150-7	Wheel Assembly - Cross-wind right (see figure 29 for breakdown)	1	1
		NOTE:		
		For airplanes serials 7003 thru 7549 order kit 52-3-573.		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

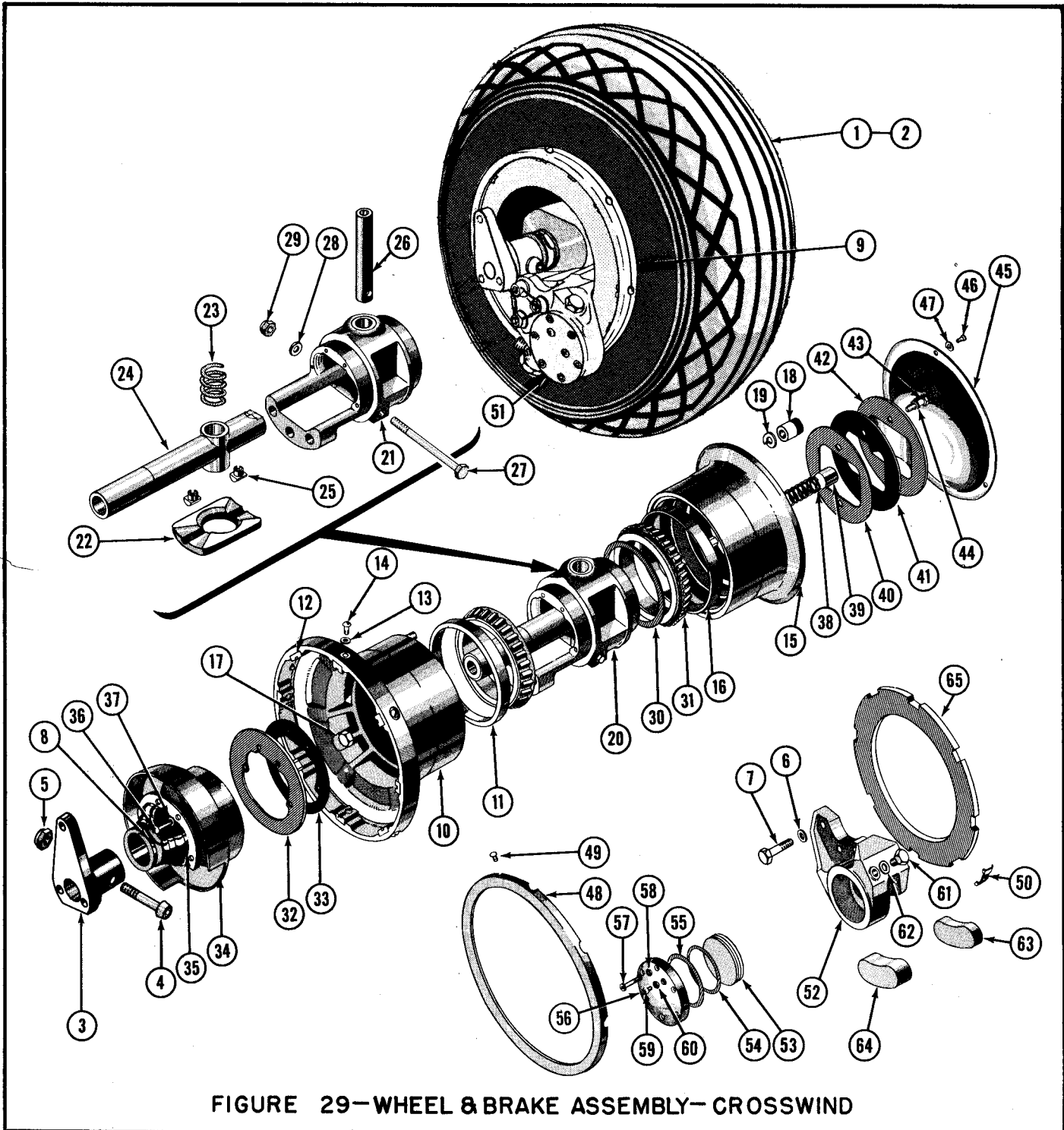


FIGURE 29—WHEEL & BRAKE ASSEMBLY—CROSSWIND

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	0341150-8	Wheel Assembly - Cross-wind left (see figure 28 for NHA)	Ref	Ref
	0341150-7	Wheel Assembly - Cross-wind right (see figure 28 for NHA)	1	1
29-1	700 x 8	Tire - Aircraft (6 ply rating rayon casing)	1	1
-2	700 x 8	Tube - Aircraft	1	1
	0341150-4	Wheel Brake & Collar Assembly - Cross-wind left	1	1
	0341150-5	Wheel Brake & Collar Assembly - Cross-wind right	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

FIGURE 29 WHEEL AND BRAKE ASSEMBLY - CROSS-WIND (EFF. SERIALS 7550 &amp; ON) (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
29-3	0341144						Collar - Cross-wind axle left	1	1
	0341144-1						Collar - Cross-wind axle right	1	1
-4	0341150-3						Bolt - (Attach collar to axle)	1	1
-5	AN364-918						Nut	1	1
	0341005						Wheel & Brake Assembly - Left (Gy 9540341)	1	1
	0341005-1						Wheel & Brake Assembly - Right (Gy 9540342)	1	1
-6	AN960-616 *						Washer	3	3
-7	0341005-68 *						Bolt - (Attach brake) (Gy 9510456)	3	3
-8	0541116-24						Clamp - Dust cover (Gy 95-5242)	1	1
-9	0341005-5						Wheel Assembly - Left (Gy 9530505)	1	1
	0341005-6						Wheel Assembly - Right (Gy 9530506)	1	1
-10	0341005-7						Wheel Sub-Assembly - Inboard half (Gy 9530502)	1	1
-11	0541116-5						Cup - Bearing (Gy 95-6216)	1	1
-12	0341005-10						Key - Disc drive (Gy 9511084)	10	10
-13	AN960D416L						Washer - Plain	10	10
-14	0341005-12						Screw - Key retaining (Gy 9520141)	10	10
-15	0341005-8						Wheel Sub-Assembly - Outboard half (Gy 9530501)	1	1
-16	0541116-5						Cup - Bearing (Gy 95-5216)	1	1
-17	9521396						Bolt - (Attach wheel halves)	8	8
-18	0341005-15						Nut - (Attach wheel halves)	8	8
-19	NAS143-50						Washer - Plain	8	8
-20	0341005-18						Hub & Axle Sub-Assembly - (Gy 9520385)	1	1
-21	0341005-19						Hub - Bearing (Gy 9530488)	1	1
-22	0341005-20						Cam - Compensating (Gy 9520049)	1	1
-23	0341005-21						Spring - Compensating cam (Gy 9510991)	1	1
-24	0341005-67						Axle Extension - (Gy 9530489)	1	1
-25	0341005-22						Follower - Cam (Gy 9510994)	2	2
-26	0341005-23						Pin - King (Gy 9510982)	1	1
-27	AN3-22A						Bolt - King pin retaining	1	1
-28	AN960-10						Washer - Plain	1	1
-29	AN365-1032						Nut - Self-locking	1	1
-30	0541116-12						Shim - Pack (Gy 9510983)	1	1
-31	0541116-11						Cone - Bearing (Gy 95-5217)	2	2
-32	0541116-13						Plate - Inboard bearing seal gasket (Gy 9510978)	1	1
-33	0541116-14						Gasket - Bearing seal (Gy 9510977)	1	1
-34	0341005-31						Plate - Deflector left (Gy 9530507)	1	1
	0341005-32						Plate - Deflector right (Gy 9530508)	1	1
-35	0541116-17						Boot - Axle (Gy 9520424)	1	1
-36	AN515-6-8						Screw - (Attach boot)	4	4
-37	AN936A6						Washer - Lock	7	7
-38	0341005-36						Spring - Dampener brake (Gy 9511066)	1	1
-39	0341005-37						Lining - Dampener Brake (Gy 9511069)	1	1
-40	0541116-20						Plate - Stabilizer cap gasket (Gy 9510966)	1	1
-41	0541116-21						Gasket - Stabilizer cap (9510965)	1	1
-42	0541116-22						Cap - Stabilizer (Gy 9521246)	1	1
-43	AN503-416-10						Screw - (Attach cap)	2	2
-44	AN960-416						Washer	2	2
-45	0341005-43						Fairing - Wheel (Gy 9521046)	1	1
-46	0341005-44						Screw - (Attach fairing) (Gy 95-5371)	4	4
-47	0341005-45						Washer - Shakeproof (Gy 95-5362)	4	4
-48	0341005-46 *						Ring - Disc retaining (Gy 9530533)	1	1
-49	49398 *						Fastener - (Gy 95-5383)	5	5
-50	0341005-48						Clip - Disc (Gy 9521253)	5	5
-51	0341005-49 *						Brake Assembly - Left (Gy 9530503)	1	1
	0341005-50 *						Brake Assembly - Right (Gy 9530504)	1	1
-52	0341005-51						Housing - Brake left (Gy 9540345)	1	1
	0341005-52						Housing - Brake right (Gy 9540344)	1	1
-53	0541116-34						Piston - Brake (Gy 9510155)	1	1
-54	AN6230-2						Seal - Piston "O" ring	1	1
-55	AN6230-3						Seal - Cylinder head "O" ring	1	1
-56	0341005-56						Head - Cylinder (Gy 9521245)	1	1
-57	0341005-57						Screw - (Attach head) (Gy 95-5163)	6	6
-58	AN936C10						Washer	6	6
-59	AN505-8R5						Screw - Bleeder	1	1
-60	0541116-36						Seal - Bleeder screw (Gy 95-1989)	1	1
-61	0541116-8						Plug - Inlet (Gy 9520448)	1	1
-62	AN6290-4						Gasket - Inlet plug	1	1
-63	0341005-63						Lining - Brake (anvil side) (Gy 9511055)	1	1
-64	0341005-64						Lining - Brake (piston side) (Gy 9511054)	1	1
-65	0341005-65						Disc - Brake (Gy 9530466)	1	1
	0341150-50	Wheel & Collar					Assembly - Cross-wind left (same as 0341150-4 less parts marked (*).	1	1
	0341150-51	Wheel & Collar					Assembly - Cross-wind right (same as 0341150-5 less parts marked (*).	1	1

Gy indicates Goodyear Tire &amp; Rubber Co.

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

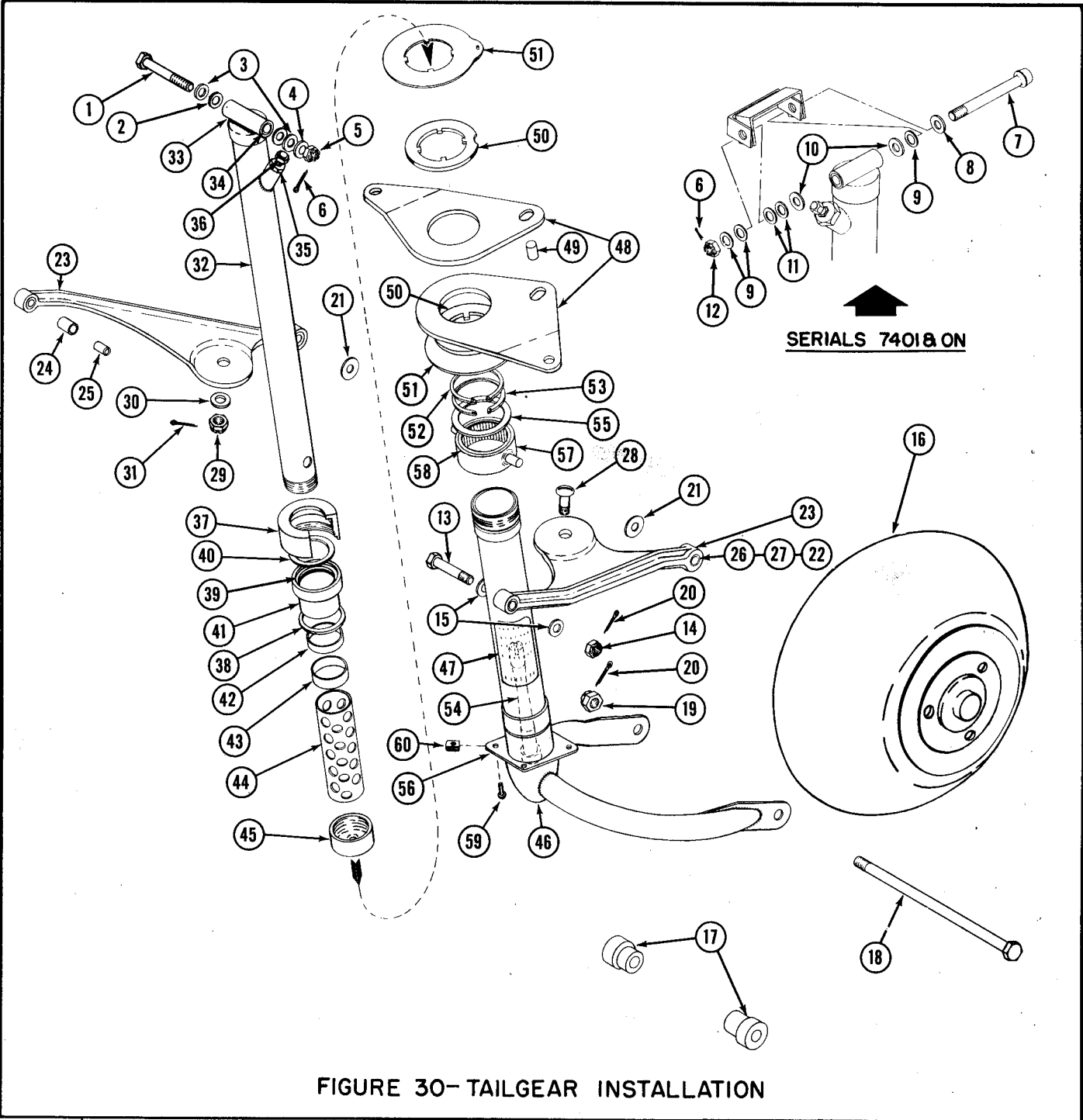


FIGURE 30- TAILGEAR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Tail Gear Installation							
30-1	AN4-26A							1	1
-2	AN960-516							1	1
-3	0342121							2	2
-4	AN960-416							2	2
-5	AN310-4							2	2
-6	AN380-2-2							1	1
-7	NAS145A-48							3	3
								1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

FIGURE 30

TAIL GEAR INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

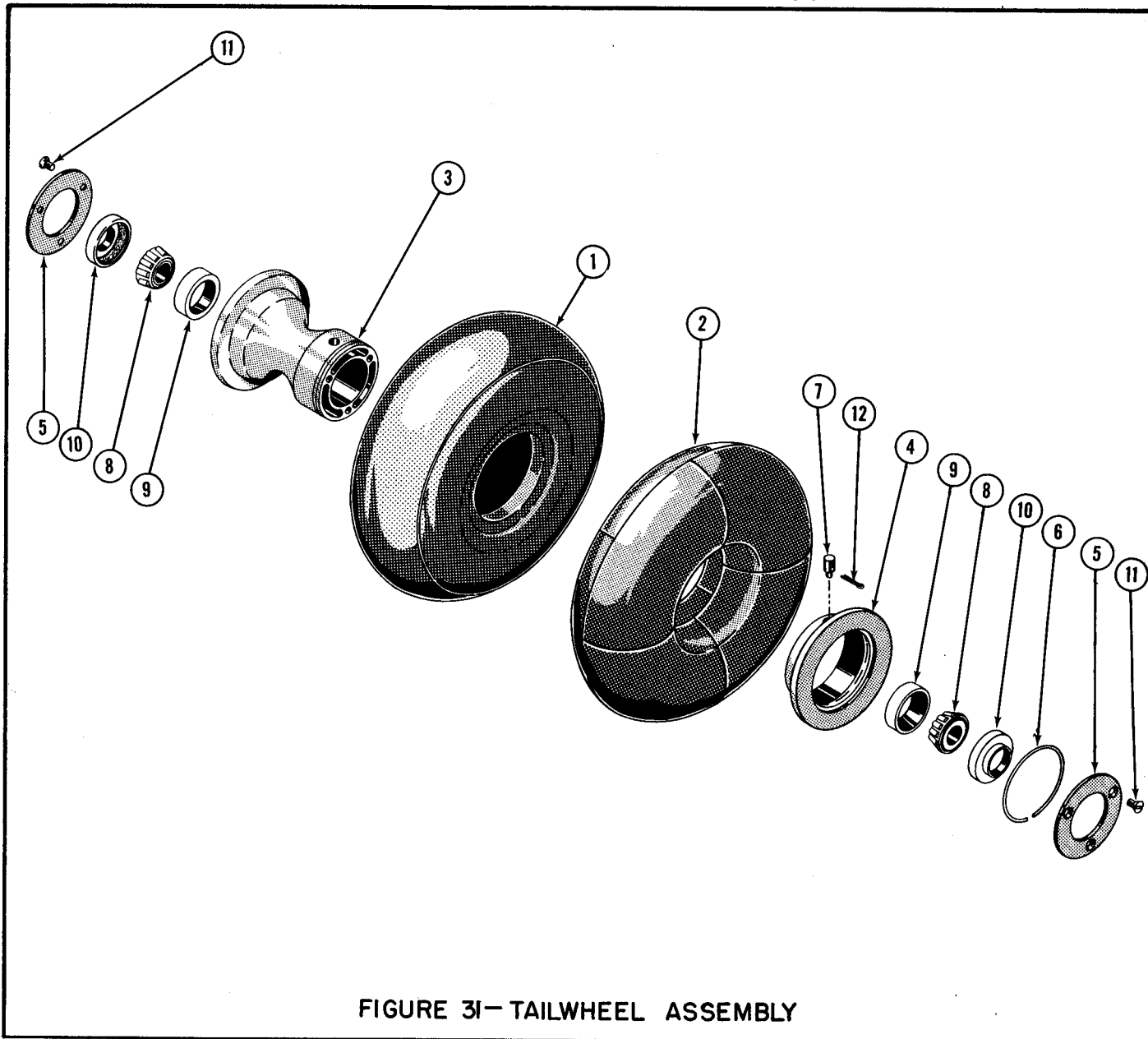


FIGURE 31-TAILWHEEL ASSEMBLY

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	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.							



## ILLUSTRATED PARTS CATALOG

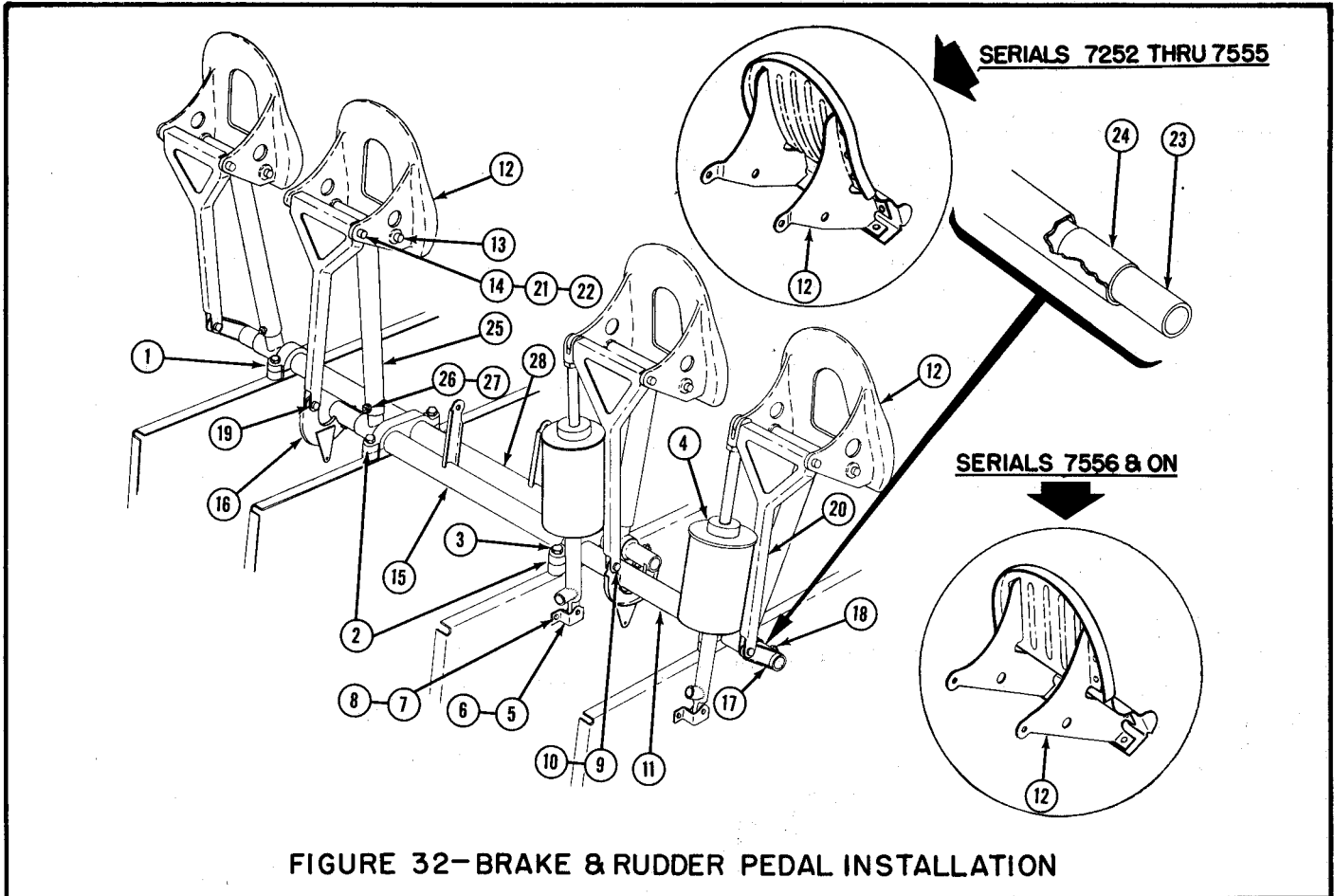


FIGURE 32-BRAKE &amp; RUDDER PEDAL INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Brake And Rudder Pedal Installation (Cessna 0310107)						1	1
32-1	0411263							2	2
-2	0411264							2	2
-3	AN3-14A							8	8
	AN365-1032							8	8
-4								2	2
								2	2
	0541138-3							2	2
-5	0411549							2	2
-6	0411550							2	2
-7	AN3-4A							4	4
-8	AN365-1032							4	4
-9	AN393-13							2	2
-10	AN380-2-2							2	2
-11	0310107-10							1	1
-12	0411300							2	2
	0310452							2	2
	0310453							2	2
-13	0411369-2							2	2
-14	0411778-1							2	2
	0411778-2							2	2
-15	0310167							1	1
-16	0310389							1	1
-17	0411563							1	1
-18	AN3-10A							2	2
	AN365-1032							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							2	2
	NAS43-3-12							2	2
	AN380-2-2							2	2
-20	0411564							2	2
-21	AN380-2-2							4	4
-22	NAS42-6-8							1	1
-23	0310407							1	1
-24	0411548							2	2
-25	0411307							2	2
-26	AN3-11A							2	2
-27	AN365-1032							2	2
-28	0310107-11							1	1

NOTE: This assembly is identical to 0310107-10 except use 0310167-1 instead of 0310167, and 0310238 instead of 0310389.

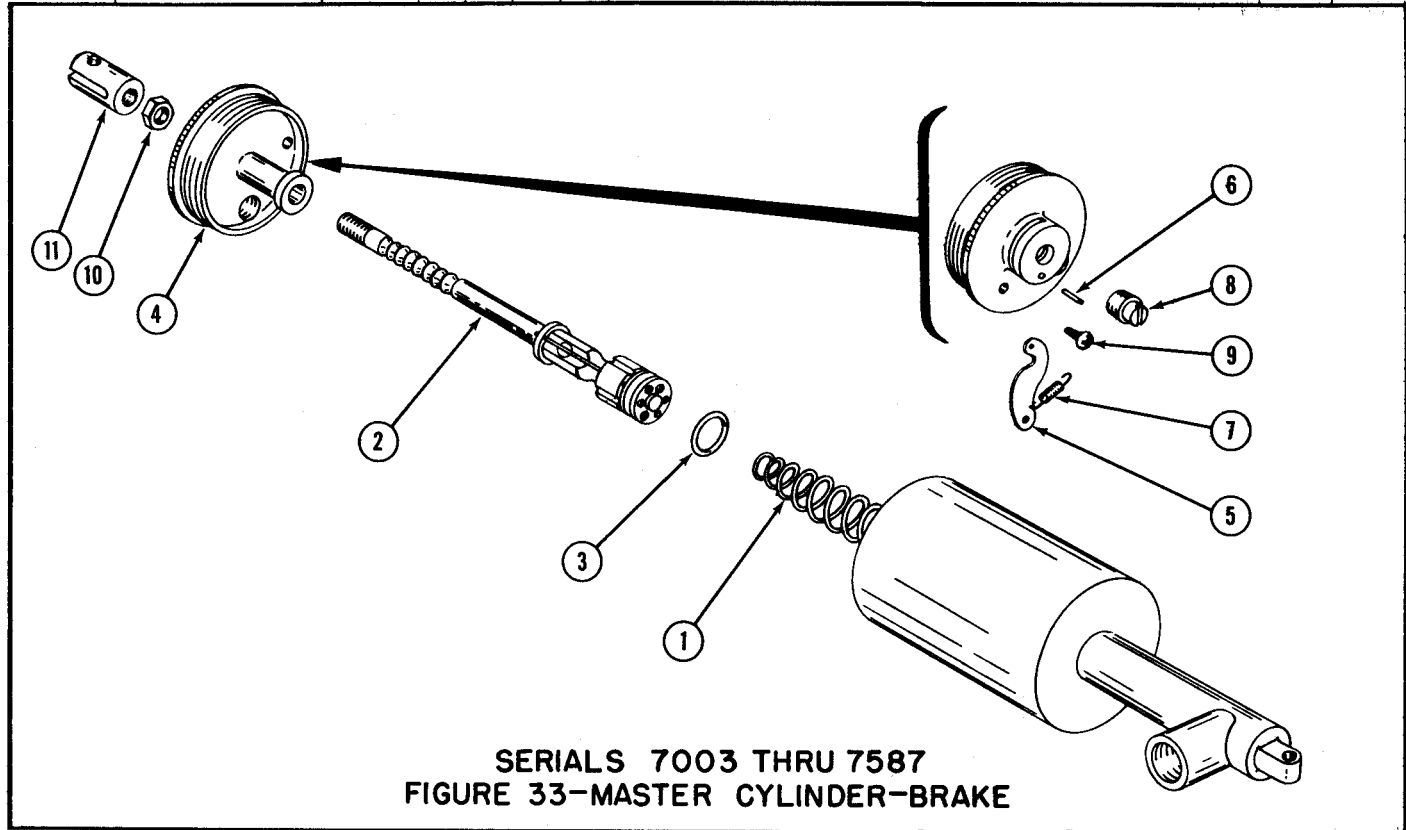


FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0411058	Master Cylinder - Brake (Goodyear 95-3681) (see figure 52 for NHA) (0411058)						Ref	Ref
	0411058-2	Sub Assembly - Cylinder and reservoir (Goodyear 95-3676)						1	1
33-1	0411058-3	Spring - Piston 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

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

## ILLUSTRATED PARTS CATALOG

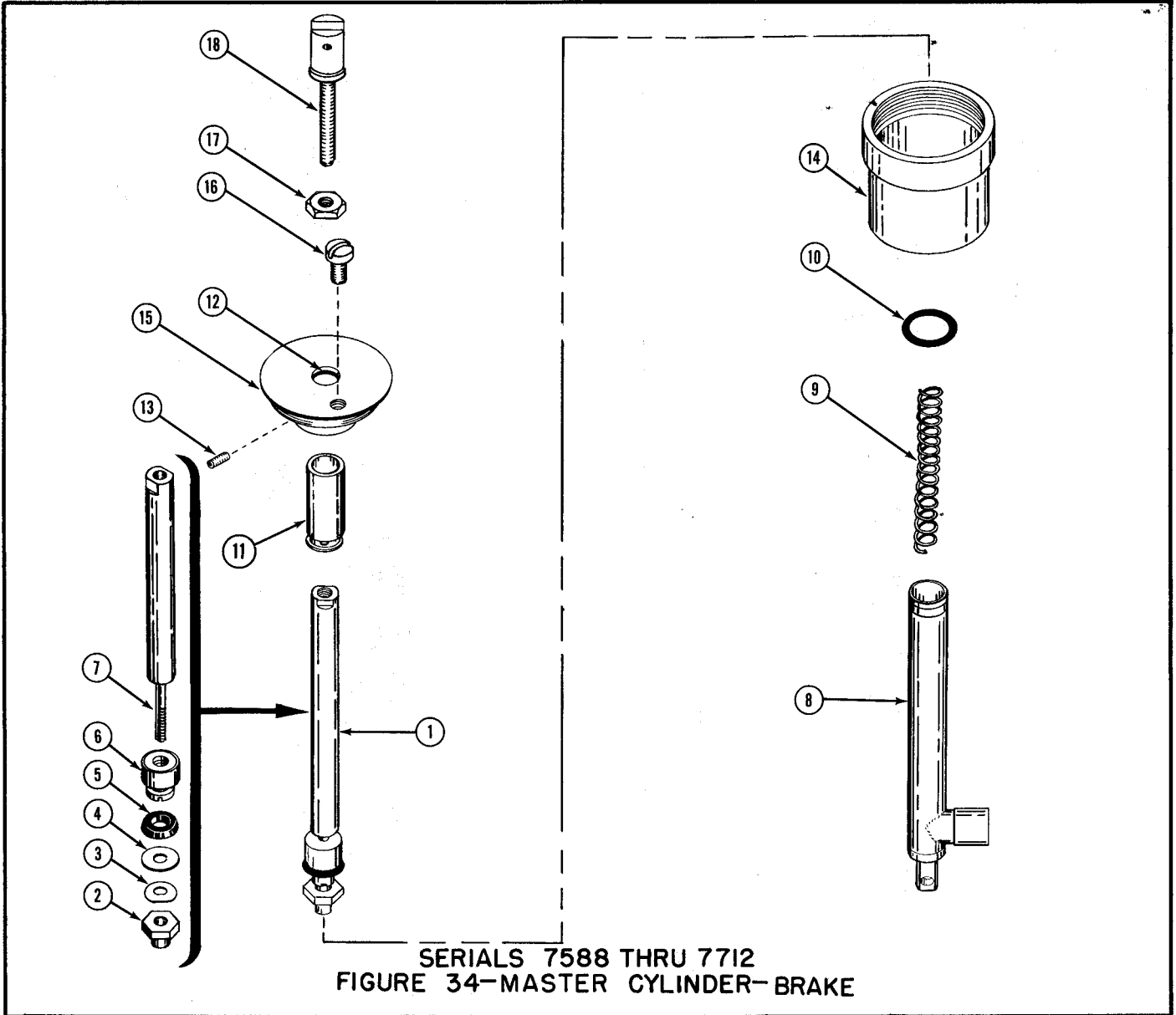
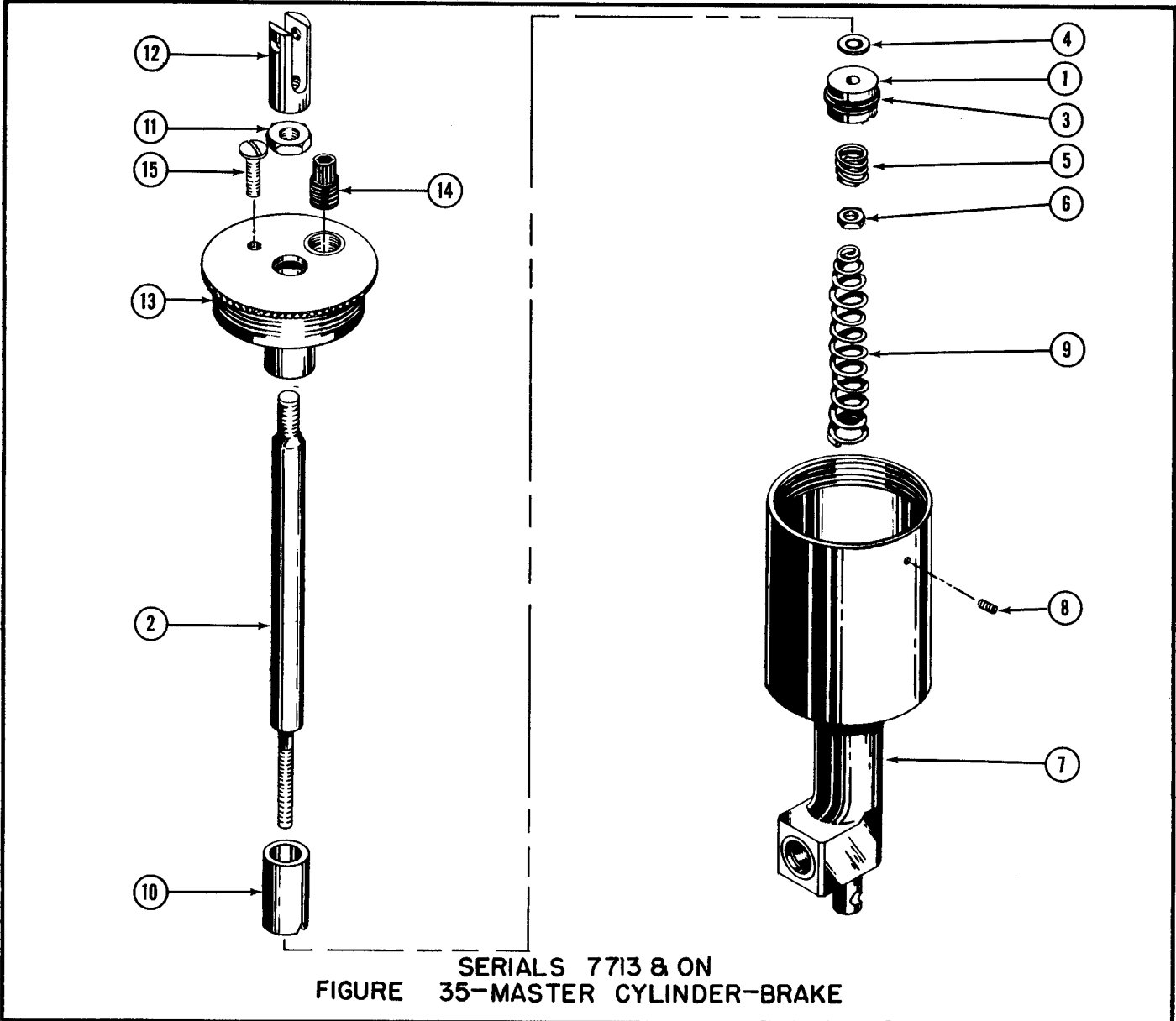


FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Master Cylinder - Brake (Scott 4408E) (0411302-20 Ref)						Ref	Ref
34-1	0411302-3	Piston Assembly - Cylinder						1	1
-2	0411302-17	Nut - Piston (Scott 4481)						1	1
-3	0411302-19	Washer - Spring (Scott 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 - Phillips 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							1	1
-2	0541144							1	1
-3	AN6227-8							1	1
-4	200AC-6							1	1
-5	0541148-1							1	1
-6	AN365-632C							1	1
-7	0541147							1	1
-8	AN565-D6-3							1	1
-9	0541148							1	1
-10	0541149							1	1
-11	AN316-4R							1	1
-12	0541140							1	1
-13	0541151							1	1
-14	0541139							1	1
-15	1024 x 1/2							1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

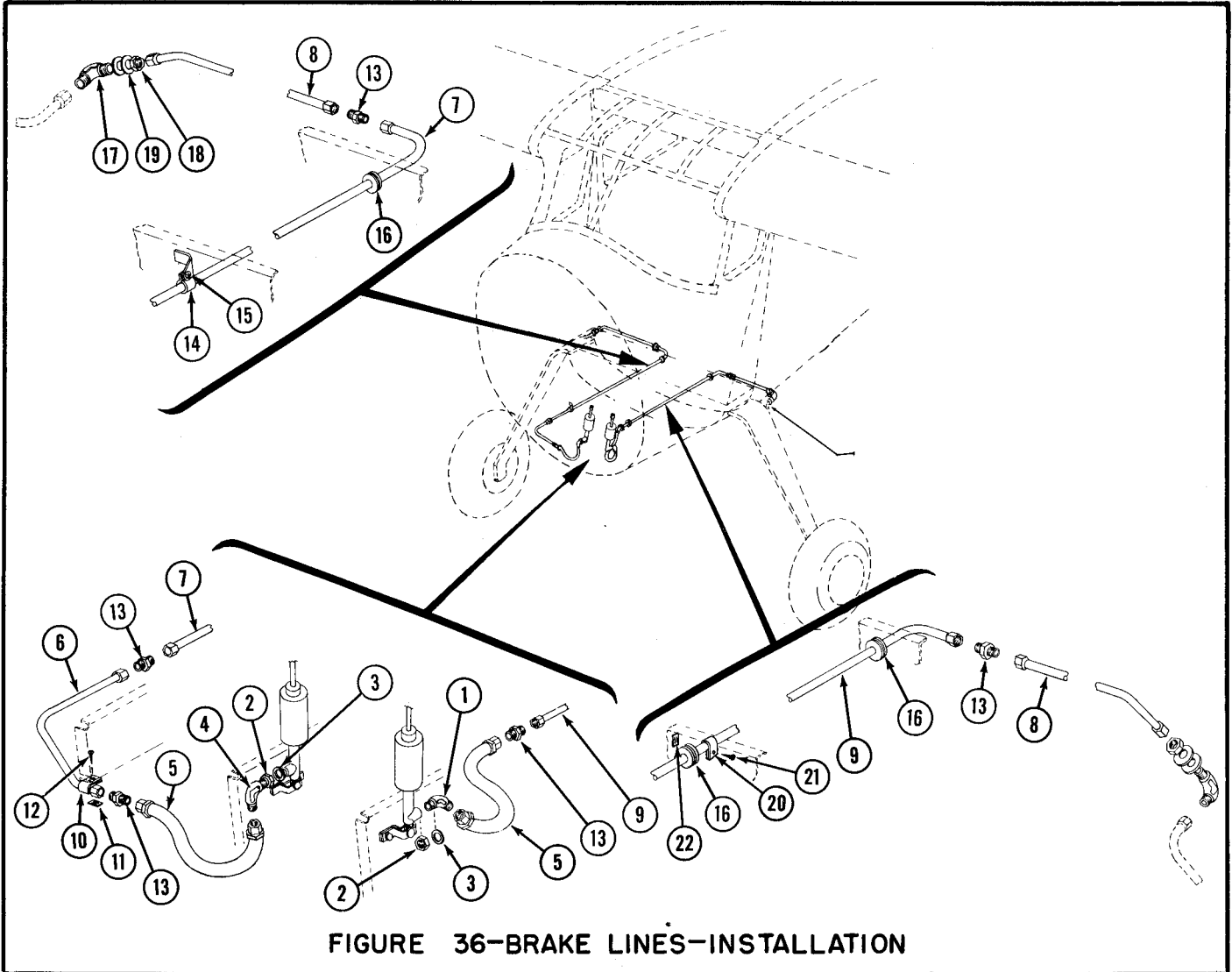


FIGURE 36-BRAKE LINES-INSTALLATION

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	O300106-1	Line - Brake (flexible hose to union right)	1	1
-7	O300106-2	Line - Brake (union to bulkhead right)	1	1
-8	O300106-3	Line - Brake (bulkhead to fuselage skin)	2	2
-9	O300106-36	Line - Brake (union to bulkhead left)	1	1
-10	AN742-D6C	Clamp - (Attach brake line)	1	1
-11	NAS446-4-3	Nut - (Tinnermah 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

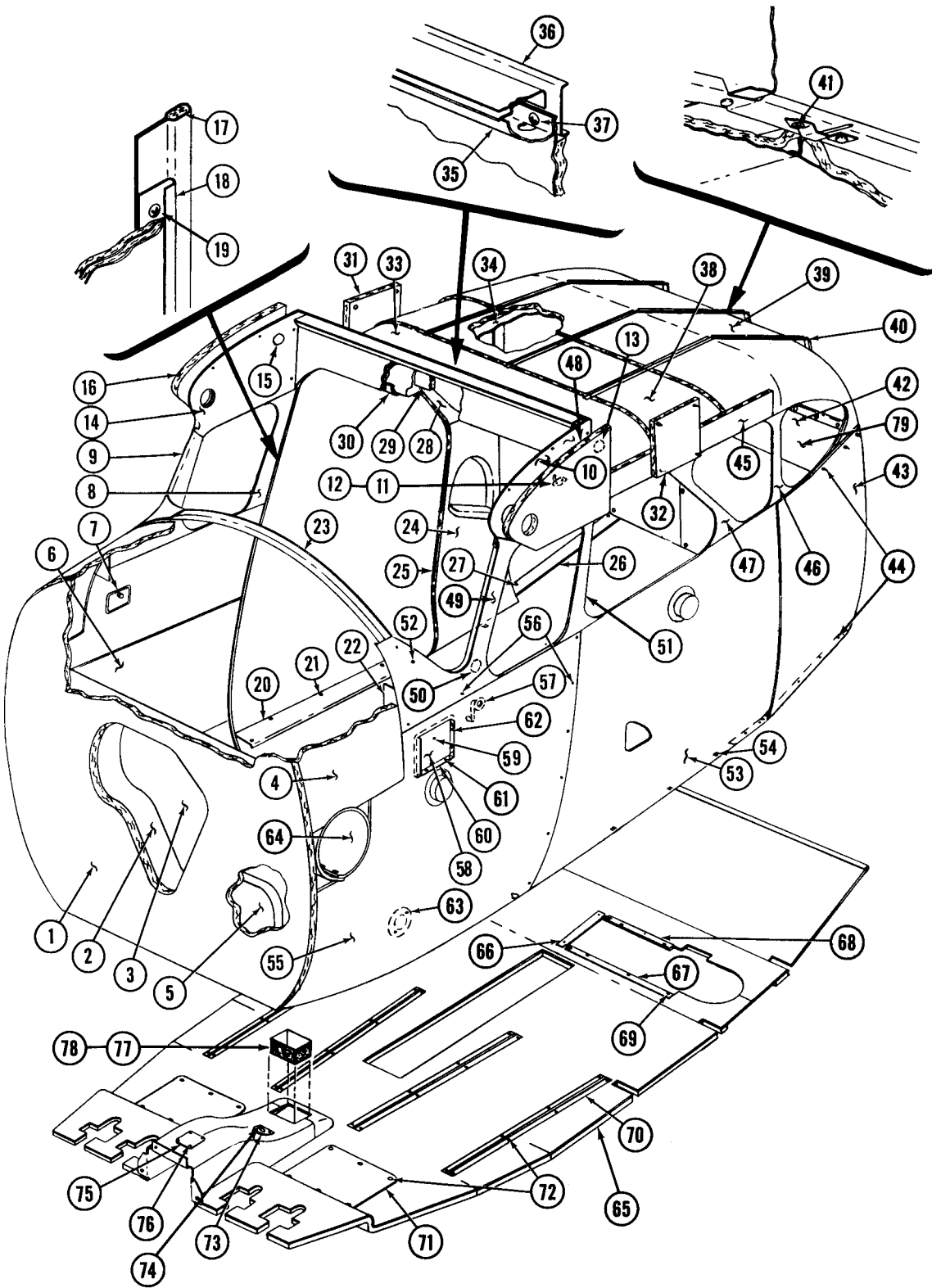


FIGURE 37-UPHOLSTERY INSTALLATION



ILLUSTRATED PARTS CATALOG

FIGURE 37

UPHOLSTERY INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Upholstery Installation (0311172 Ref)						1	1
37-1	0311174-2	Panel - Firewall soundproofing						1	1
-2	0311174-3	Strip - Center pan side soundproofing						1	1
-3	0311174-4	Cover Panel - Center pan soundproofing						1	1
-4	0311174-5	Panel - Upper cowl soundproofing						1	1
-5	0311173	Cover Assembly - Wynsote						1	1
-6	0311177	Panel Assembly - Forward right (Eff. serials 7003 thru 7741)						1	1
	0311177-22	Panel Assembly - Fwd. right (Eff. ser 7742 thru 16083)						1	1
	0300100-20	Panel Assembly - Fwd. right (Eff. ser 16084 & on)						1	1
	0300100-130	Armrest Assembly						1	1
	PK76XZ-8-8	Screw - (Attach arm rest)						3	3
-7	0411030-3	Receiver - Ash						3	3
	AN515-6R6	Screw - (Attach ash receiver)						6	6
	AN365-632	Nut - (Attach ash receiver)						6	6
-8	0311183-14	Panel - Window trim						1	1
-9	0311625-1	Cover - Windshield interior trim right						1	1
	0311182	Panel Assembly - Upper left						1	1
-10	0311182-14	Panel Assembly - Bare left						1	1
-11	0511018	Hook - Utility						2	2
-12	PK76XZ-6-6	Screw - (Attach hook)						2	2
	NAS446-3	Nut - (Attach hook)						2	2
-13	0311051-2	Lamp - Base						1	1
	AN526-632R8	Screw - (Attach lamp base)						2	2
	AN365-632	Nut - (Attach lamp base)						2	2
	0311182-1	Panel Assembly - Upper right						1	1
-14	0311182-4	Panel Assembly - Bare right						1	1
-15	0311051-2	Lamp-Base						1	1
	AN526-632R8	Screw - (Attach lamp base)						2	2
	AN365-632	Nut - (Attach lamp base)						2	2
-16	0311174-15	Panel - Soundproofing						1	1
-17	0311172-6	Windlease Assembly						1	1
-18	0311626-4	Retainer - Upholstery panel						1	1
-19	PK76XZ-4-5	Screw - (Attach retainer)						41	41
-20	0311622	Plate - Scuff						1	1
-21	PK76XZ-4-4	Screw - (Attach plate)						4	4
-22	0311172-4	Patch - Left						1	1
	0311172-5	Patch - Right						1	1
-23	0311797	Strip Assembly - Windshield lower						1	1
-24	0311178	Panel Assembly - Right rear (Eff. serials 7003 thru 7741)						1	1
	0311178-33	Panel Assembly - Right rear (Eff. ser 7742 thru 16083)						1	1
	0300100-38	Panel Assembly - Right rear (Eff ser 16084 & on)						1	1
	0300100-6	Armrest Assembly						1	1
	AN545-4R6	Screw - (Attach armrest)						5	5
	AN545-4R10	Screw - (Attach armrest)						5	5
-25	0311626-3	Retainer - Upholstery panel						1	1
-26	0311623	Plate - Scuff						1	1
-27	PK76XZ-4-4	Screw - (Attach plate)						2	2
-28	0311183-10	Panel - Window trim						1	1
-29	0311174-6	Strip - Spar						1	1
-30	0311515-2	Pad - Fuselage front spar						1	1
-31	0311174-16	Panel - Soundproofing						2	2
-32	49265-F52	Clip - Retaining (attach panel)						8	8
-33	0311174-8	Panel Assembly - Soundproofing						1	1
-34	0311179	Headlining Assembly						1	1
-35	0311493	Shield - Sunshade support						1	1
-36	0311755	Retainer - Upholstery						1	1
-37	PK76XZ-8-8	Screw - (Attach retainer and shield)						3	3
-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

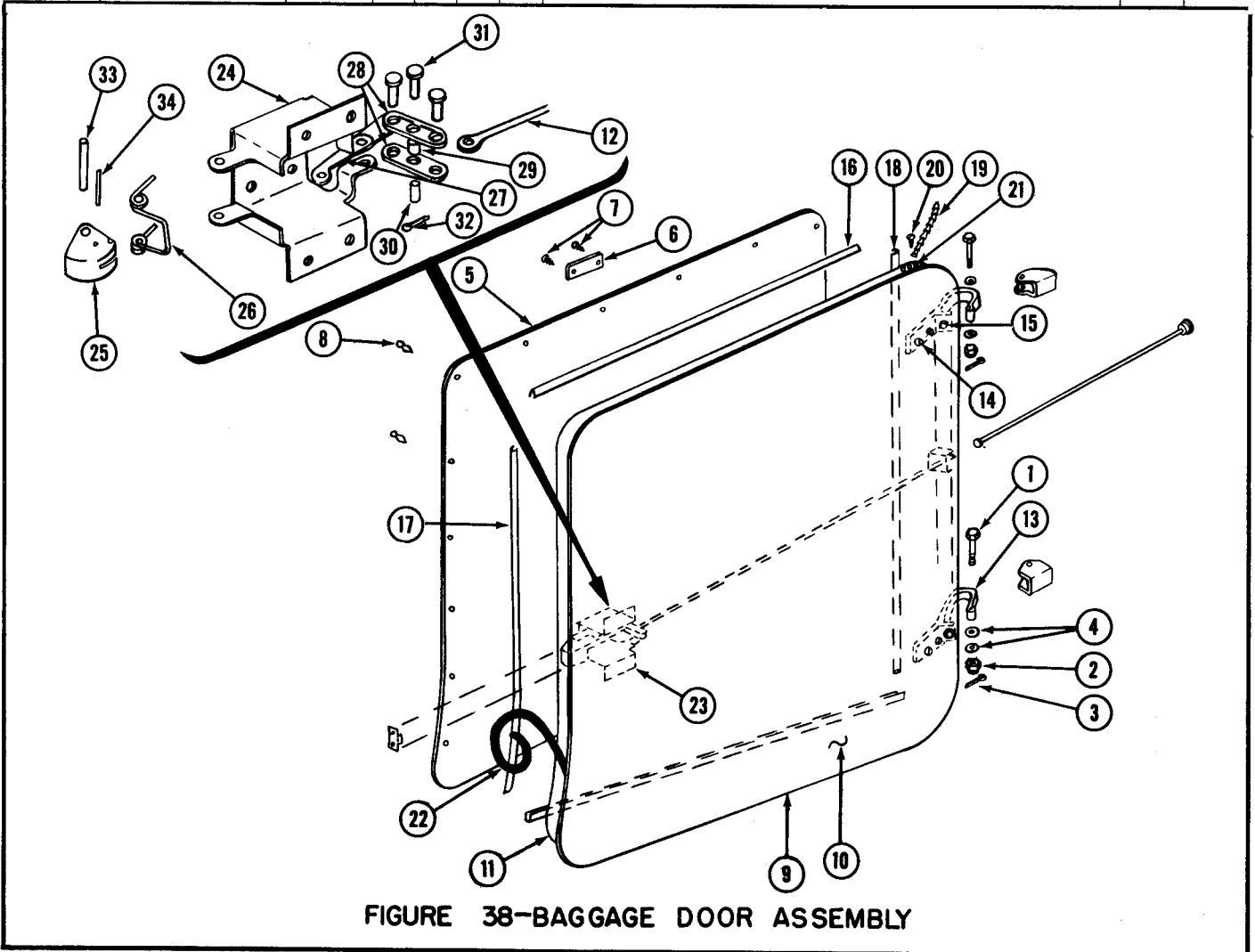


FIGURE 38-BAGGAGE DOOR ASSEMBLY

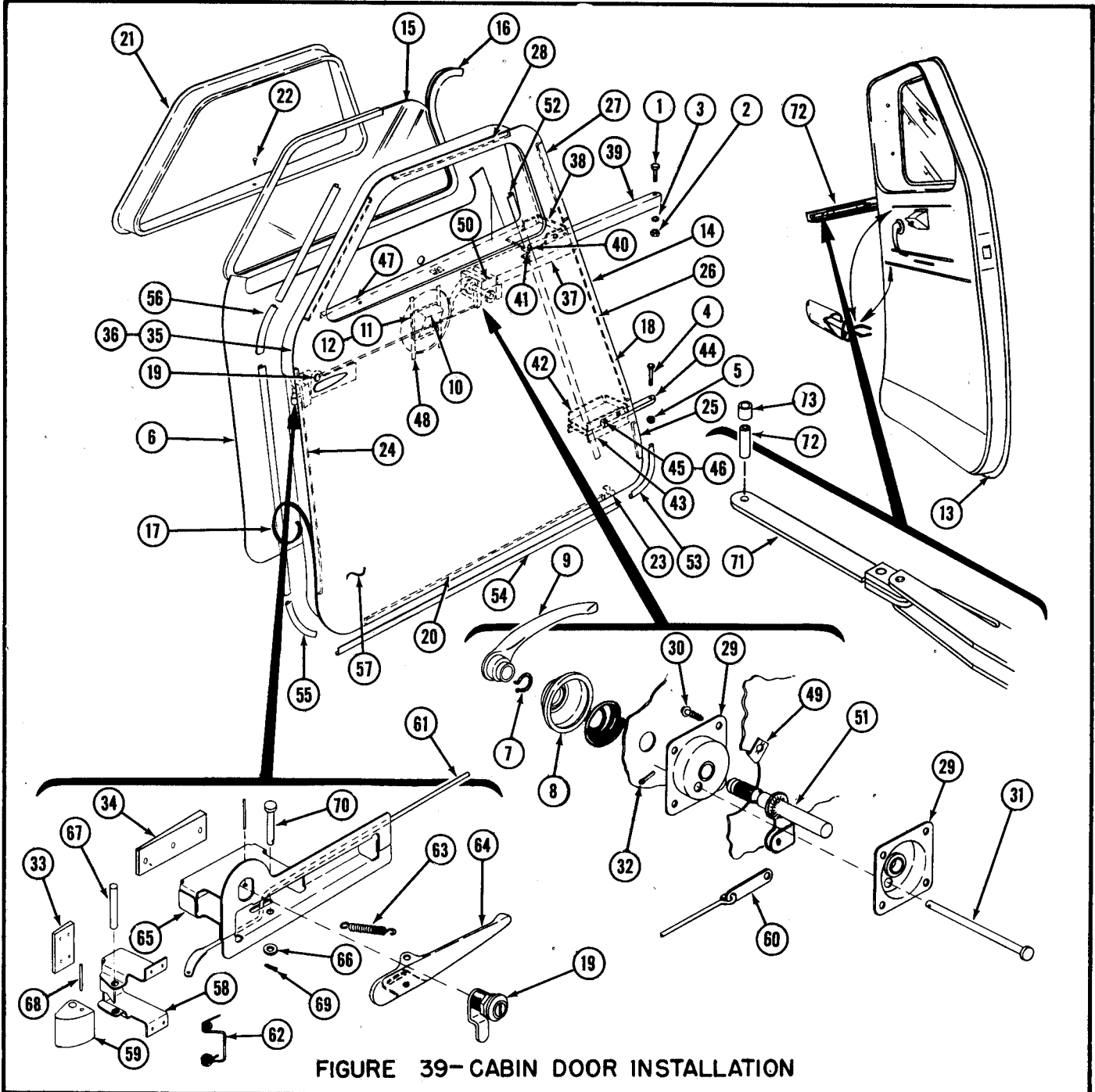


FIGURE 39-CABIN DOOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Cabin Door Installation						1	1
39-1	AN4-10A							1	1
-2	AN365-428							1	1
-3	AN960-416							1	1
-4	AN4-15A							1	1
-5	AN365-428							1	1
	0311647-22							1	1
	0311647-41							1	1
-6	0311647-14							1	1
	0311647-40							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								
-7	0511182							1	1
	0511189-1							1	1
-8	0511181							1	1
	0511189-2							1	1
-9	0511183							1	1
	0511189							1	1
	0413317-1							1	1
-10	0411030-4							1	1
-11	AN515-6R-6							2	2
	0411030-3							1	1
	PK76XZ-4-8							2	2
-12	AN365-632							2	2
-13	0311647-12							1	1
-14	0311204							1	1
-15	0311204-3							1	1
-16	0311204-4							1	1
-17	0311204-8							1	1
-18	0311204-9							1	1
-19	0311444							1	1
-20	0413271-11							1	1
-21	0311244							1	1
-22	PK76XZ-8-6							10	10
-23	0311298							1	1
-24	0413271-12							1	1
-25	0413271-13							1	1
-26	0413271-14							1	1
-27	0413271-15							2	2
-28	0413271-16							1	1
-29	0413195-3							2	2
-30	PK79XZ-8-8							2	2
-31	AN394-83							1	1
-32	AN380-2-2							1	1
-33	0311204-5							1	1
-34	0311204-6							1	1
-35	0311274							1	1
-36	0311274-3							1	1
-37	0311274-4							1	1
-38	0311274-5							1	1
-39	0311274-6							1	1
-40	AN3-13A							2	2
-41	AN365-1032							2	2
-42	0311274-8							1	1
-43	0311274-9							1	1
-44	0311274-10							1	1
-45	AN3-6A							2	2
-46	AN365-1032							2	2
-47	0311274-11							1	1
-48	0311274-12							2	2
-49	NAS395-13-3							4	4
-50	0311274-14							1	1
-51	0311363							1	1
-52	0311648-3							1	1
-53	0311648-5							1	1
-54	0311648-7							1	1
-55	0311648-9							1	1
-56	0311648-11							1	1
-57	0311273							1	1
	0311285							1	1
-58	0311280							1	1
-59	0311281-4							1	1
-60	0311282							1	1
-61	0311283							1	1
-62	0311284							1	1
-63	0311433							1	1
-64	0311434							1	1
-65	0311435							1	1
-66	AN960-10L							3	3
-67	NAS41-3-1.562							1	1
-68	NAS41-2-1.000							1	1
-69	AN380-2-2							1	1
-70	AN393-33							1	1
-71	0311424							1	1
-72	0311539-3							2	1
-73	0300001-5							2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

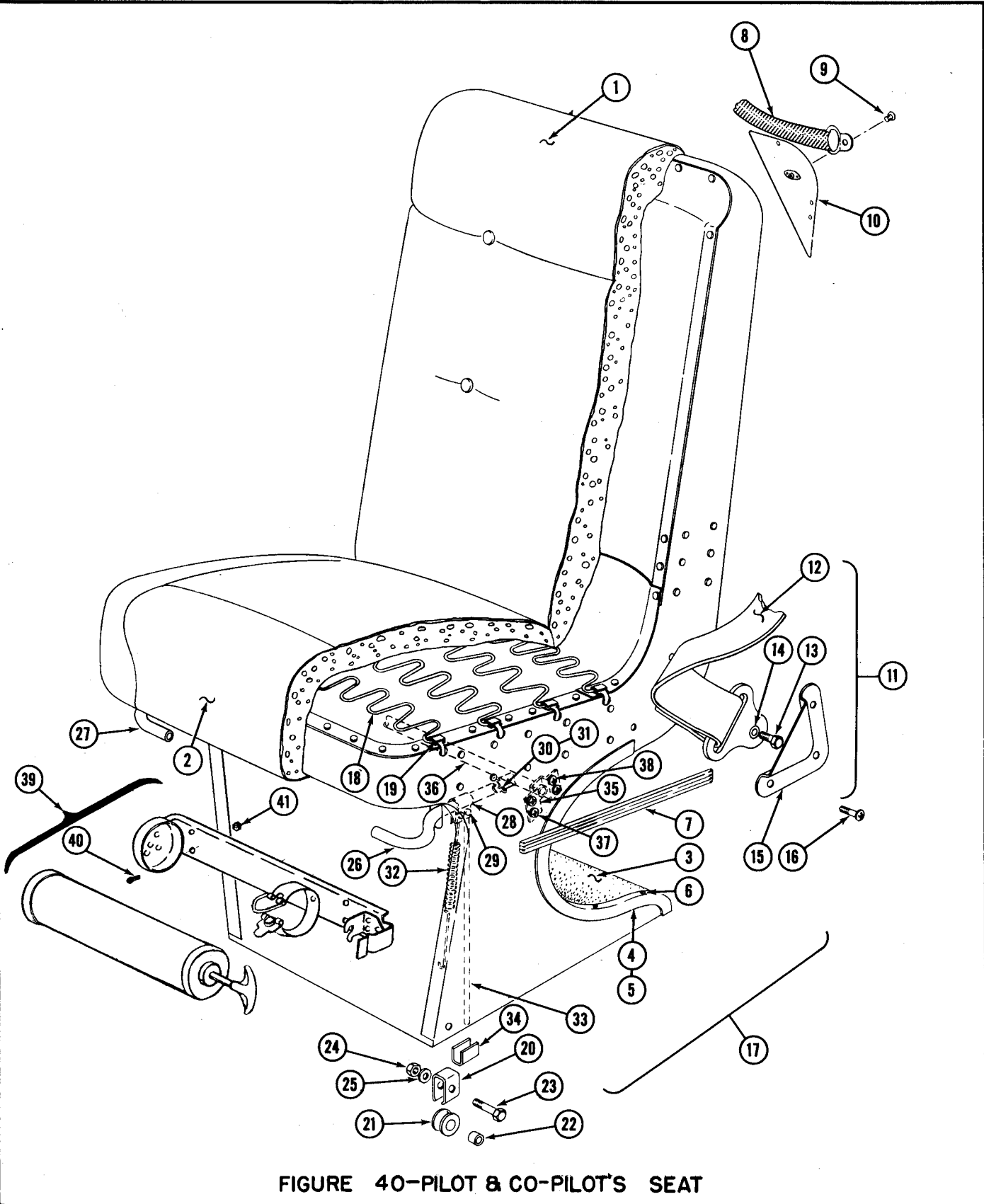


FIGURE 40-PILOT & CO-PILOT'S SEAT



ILLUSTRATED PARTS CATALOG

FIGURE 40

PILOT & CO-PILOT'S SEAT

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0311618	Seat Assembly - Co-pilot complete (Eff. serials 7003 thru 7741)						1	1
	0311618-85	Seat Assembly - Co-pilot complete (Eff. serials 7742 & on)						1	1
	0311618-2	Seat Assembly - Pilot complete (Eff. serials 7003 thru 7741)						1	1
	0311618-86	Seat Assembly - Pilot complete (Eff. serials 7742 & on)						1	1
40-1	0311618-73	Cover Assembly - Seat back (Eff. serials 7003 thru 7741)						1	1
	0311618-76	Cover Assembly - Seat back (Eff. serials 7742 & on)						1	1
-2	0311618-53	Cover Assembly - Seat cushion (Eff. serials 7003 thru 7741)						1	1
	0311618-87	Cover Assembly - Seat cushion (Eff. serials 7742 & on)						1	1
-3	0311618-6	Carpet - Seat						1	1
-4	0311619	Strip - Seat upholstery trim left						1	1
-5	0311619-1	Strip - Seat upholstery trim right						1	1
-6	PK76XZ-8-8	Screw - (Attach trim strip)						8	8
-7	0311618-12	Strip - Seat upholstery trim						2	2
-8	0311618-100	Robe Rail Assist Assembly - Seat						1	1
-9	10-32 x 5/8	Screw - (Attach assist rail) (AU-VE-CO nickle plated)						2	2
-10	0311301-10	Plate - Robe rail attachment						2	2
-11	AN362-F1032	Nutplate - (Attach robe rail)						2	2
-12	0311710-6	Belt Assembly - Safety						1	1
-13	AN4-10A	Bolt - (Attach stirrup to seat)						2	2
-14	NAS43C-4-28	Bushing - Stirrup						2	2
-15	0311711	Bracket - Cover plate						2	2
-16	NAS221-8	Screw - (Attach bracket)						6	6
-17	0311301	Seat Assembly - Pilot & Co-pilot (less upholstery)						1	1
-18	0311301-4	Spring - Seat						4	4
-19	0311512	Clip - Seat spring						8	8
-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	AN507-832R6	Screw						4	4
-41	AN365-832	Nut						4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

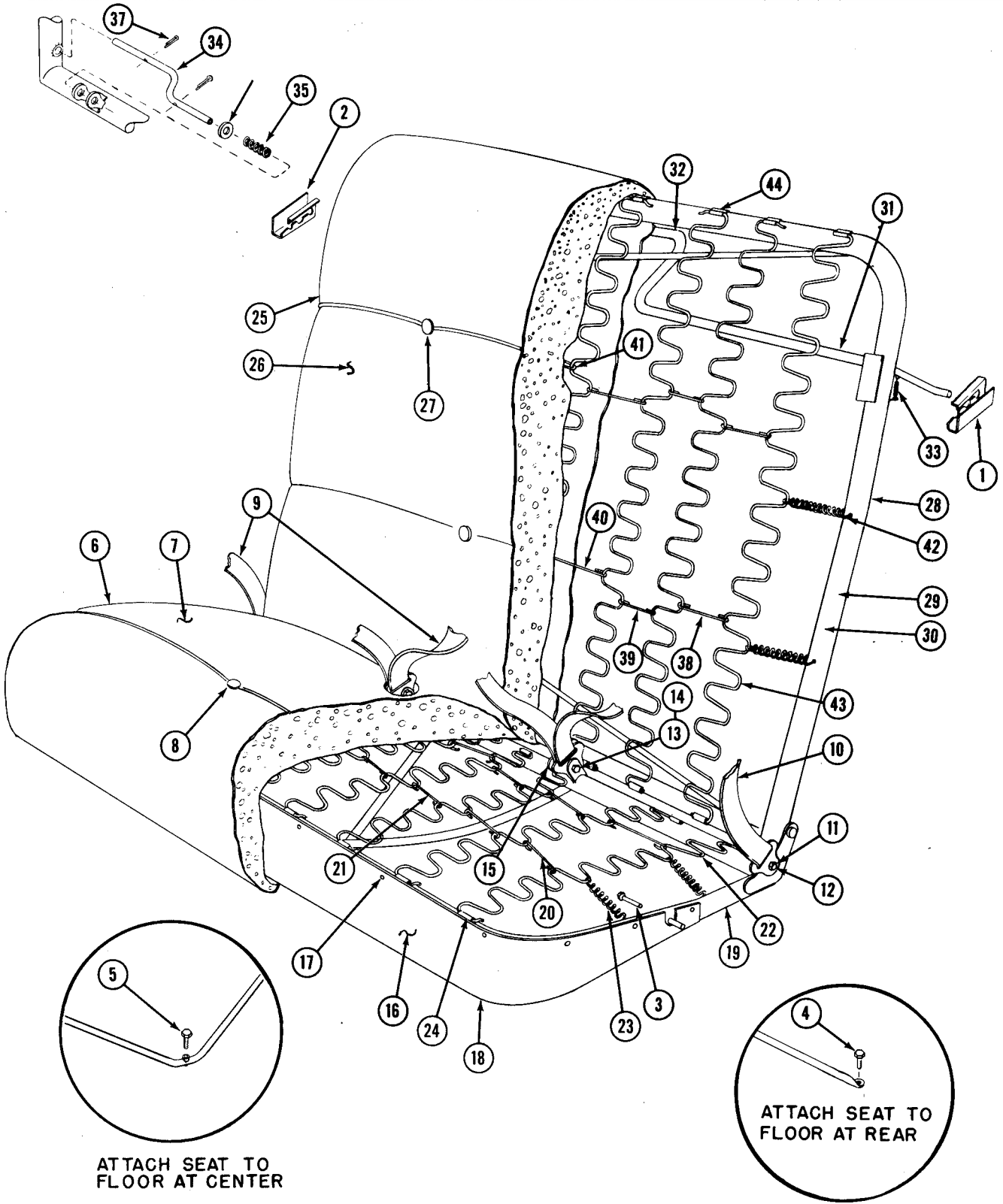


FIGURE 41-REAR SEAT ASSEMBLY



ILLUSTRATED PARTS CATALOG

FIGURE 41

REAR SEAT INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Rear Seat Installation (0311741 Ref)						1	1
41-1	0311741-11	Catch - Seat back left						1	1
-2	0311741-12	Catch - Seat back right						1	1
-3	AN3-20A	Bolt - (Attach seat at sides)						2	2
-4	AN3-4A	Bolt - (Attach seat at rear)						1	1
-5	AN3-10A	Bolt - (Attach seat at center)						1	1
		Rear Seat Assembly - Complete (0311413 Ref)						1	1
-6	0311413-77	Bottom Assembly - Rear seat (Eff. serials 7003 thru 7741)						1	1
	0311413-107	Bottom Assembly - Rear seat (Eff. serials 7742 thru 16083)						1	1
	0300100-121	Bottom Assembly - Rear seat (Eff. ser 16084 & on)							1
-7	0311413-79	Cover Assembly - Rear seat bottom						1	1
-8	#8	Jewel Button - Blue						2	2
	#55	Jewel Button - Brown						2	2
-9	0311710-6	Belt - Safety (Air Associates M5100-40-CP-850 Tan)						2	2
-10	0311710-7	Belt - Safety (Air Associates M5100-54-CP -850 Tan)						1	1
-11	AN4-7A	Bolt - (Attach safety belt)						2	2
-12	NAS43C-4-24	Spacer - Stirrup						2	2
-13	AN4-13A	Bolt - (Attach safety belt)						2	2
-14	NAS43C-4-47	Spacer - Stirrup						2	2
-15	AN365-428	Nut						4	4
-16	0311641	Valance - Seat bottom						1	1
-17	PK76XZ-4-6	Screw - (Attach valance)						11	11
-18	0311741-33	Rear Seat Assembly - Bottom (less upholstery)						1	1
-19	0311741-39	Weld Assembly - Seat bottom						1	1
-20	0311741-21	Link - Spring connector						12	12
-21	0311741-28	Link - Spring connector						6	6
-22	0311741-29	Spring - No-sag						10	10
-23	0311741-30	Spring - Extension						4	4
-24	0311512	Clip - Spring connector						20	20
-25	0311413-70	Back Assembly - Rear seat (Eff. serials 7003 thru 7714)						1	1
	0311413-117	Back Assembly - Rear seat (Eff. serials 7742 thru 16083)						1	1
	0300100-99	Back Assembly - Rear seat (Eff. ser 16084 & on)							1
-26	0311413-72	Cover Assembly - Rear seat back						1	1
-27	#8	Jewel Button - Blue						4	4
	#55	Jewel Button - Brown						4	4
-28	0311741-34	Rear Seat Assembly - Back (less upholstery)						1	1
-29	0311741-42	Weld Assembly - Seat back						1	1
-30	0311741-20	Frame Assembly - Seat back						1	1
-31	0311741-81	Arm Assembly - Latch left						1	1
	0311741-82	Arm Assembly - Latch right						1	1
-32	0311741-14	Latch - Rear seat						1	1
-33	0311730	Spring - Latch						2	2
-34	0411631	Pin - Seat lock						1	1
-35	0411818	Spring - Lock pin						1	1
-36	AN960-416L	Washer						1	1
-37	AN380-2-2	Pin - Cotter						2	2
-38	0311741-21	Link - Spring connectors						6	6
-39	0311741-23	Link - Spring connectors						4	4
-40	0311741-25	Link - Spring connectors						4	4
-41	0311741-26	Link - Spring connectors						4	4
-42	0311741-22	Spring - Extension						4	4
-43	0311741-24	Spring - No-sag						9	9
-44	0311512	Clip - Spring connector						18	18

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

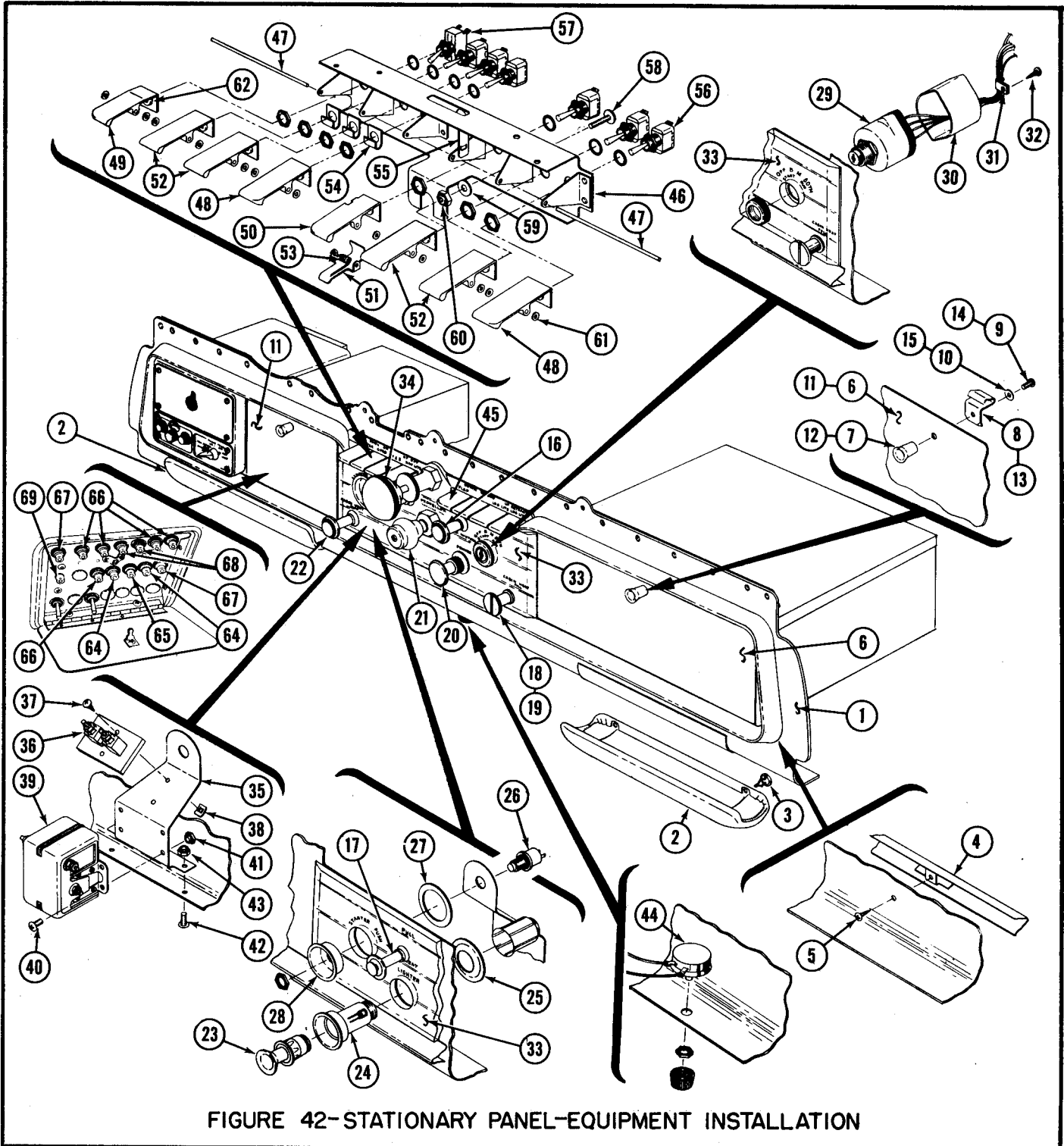


FIGURE 42-STATIONARY PANEL-EQUIPMENT INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Stationary Panel Equipment Installation						1	1
42-1	0311480	Panel Assembly - Stationary (Eff. serials 7003 thru 7349) (see figure 44 for breakdown)						Ref	Ref
	0311808	Panel Assembly - Stationary (Eff. serials 7350 & on) (see figure 44 for breakdown)						Ref	Ref





ILLUSTRATED PARTS CATALOG

FIGURE 42 STATIONARY PANEL EQUIPMENT INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
42-2	0311186							2	2
-3	99608F32						Fastener - Unified Carr (attach assist handle)	4	4
-4	0311580						Moulding - Decorative	1	1
-5	PK76XZ-8-6						Screw - (Attach moulding)	9	9
-6	0311560						Door Assembly - Glove compartment	1	1
-7	0411092						Knob - Door pull	1	1
-8	0311694						Catch - Door latch	1	1
-9	AN515-8R5						Screw - (Attach knob & catch)	1	1
-10	AN936-A8						Washer	1	1
-11	0311581-1						Door Assembly - Circuit breaker	1	1
-12	0411092						Knob - Door pull	1	1
-13	0311694						Catch - Door latch	1	1
-14	AN515-8R5						Screw - (Attach knob & catch)	1	1
-15	AN936-A8						Washer	1	1
-16	0311030-2						Control - Carburetor mixture	1	
	0311030-4						Control - Carburetor mixture		1
-17	0311030-5						Control - Carburetor heat	1	
	0311046						Control - Carburetor heat		1
-18	475261						Switch - Cabin heater (Eff. serials 7003 thru 7303)(not available)	1	1
	484972						Switch - Cabin heater (Eff. serials 7304 & on)	1	1
-19	0311768						Knob - Heater switch (see figure 64)	1	1
-20	0311538-1						Primer - Engine (Eff. serials 7003 thru 7648)	1	1
	0311538-4						Primer - Engine (Eff. serials 7649 & on)	1	1
-21	0311031-1						Control - Propeller governor	1	
	0311031-2						Control - Propeller governor		1
-22	0311030-1						Control - Cabin air vent	1	1
-23	0411094						Lighter - Cigar	1	1
-24	0311662-4						Cup - Cigar lighter	1	1
-25	0311666						Washer - Lighter cup	1	1
-26	0511063						Switch - Starter	1	1
-27	0311663						Spacer - Starter switch	1	1
-28	0311662-3						Cup - Starter switch	1	1
-29	0311038-1						Switch - Ignition	1	1
-30	0311777						Shield - Switch	1	1
-31	AN742-D4						Clamp - (Tinnerman A2980A-4)	1	1
-32	PK76XZ-6-6						Screw - (Attach clamp)	1	1
-33	0311654						Plate - Plexiglass decorative	1	1
-34	0411091-4						Control - Throttle	1	1
-35	0311664						Bracket - Starter solenoid	1	1
-36	NAP1091-1-60						Shunt - Generator (see figure 45) (Eff. serials 7532 & on)	1	1
-37	PK76XZ-8-10						Screw - (Attach shunt)	2	2
-38	NAS446-4						Nutplate	2	2
-39	0411021-1						Solenoid - Starter	1	1
-40	AN526-1032R7						Screw - (Attach solenoid)	4	4
-41	AN365-1032						Nut - (Attach solenoid)	4	4
-42	AN526-832R8						Screw - (Attach solenoid bracket)	2	2
-43	AN365-832						Nut - (Attach solenoid bracket)	2	2
-44	0413126-4						Rheostat - Compass light	1	1
-45	0311650						Panel Assembly - Switch	1	1
-46	0311650-2						Bracket Assembly - Switch	1	1
-47	0311653						Piv - Handle hinge	2	2
-48	0311656						Handle - Switch	2	2
-49	0311657						Handle - Switch	1	1
-50	0311658						Handle - Switch	1	1
-51	0311660						Handle - Switch	1	1
-52	0412473-3						Handle - Switch	4	4
-53	0311661						Spring - Switch handle	1	1
-54	0411889						Clip - Switch limit	3	3
-55	0311659						Clip - Flap switch	1	1
-56	AN3021-1						Switch	6	6
-57	AN3027-2						Switch - Master	1	1
-58	AN526-428R12						Screw	1	1
-59	AN960-516L						Washer	1	1
-60	AN365-428						Nut	1	1
-61	AN960-6						Washer	13	13
-62	AN931-4-7						Grommet - Switch handle	8	8
-63	0311579	Bracket	Assembly	-	Circuit breaker mounting (Eff. serials 7003 thru 7349) (see figure 77 for later serials)			1	1
-64	P.S.M.-2	Circuit	Breaker	-	(Klixon) 2 amps			2	2
-65	P.S.M.-5	Circuit	Breaker	-	(Klixon) 5 amps			1	1
-66	P.S.M.-10	Circuit	Breaker	-	(Klixon) 10 amps			5	5
-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

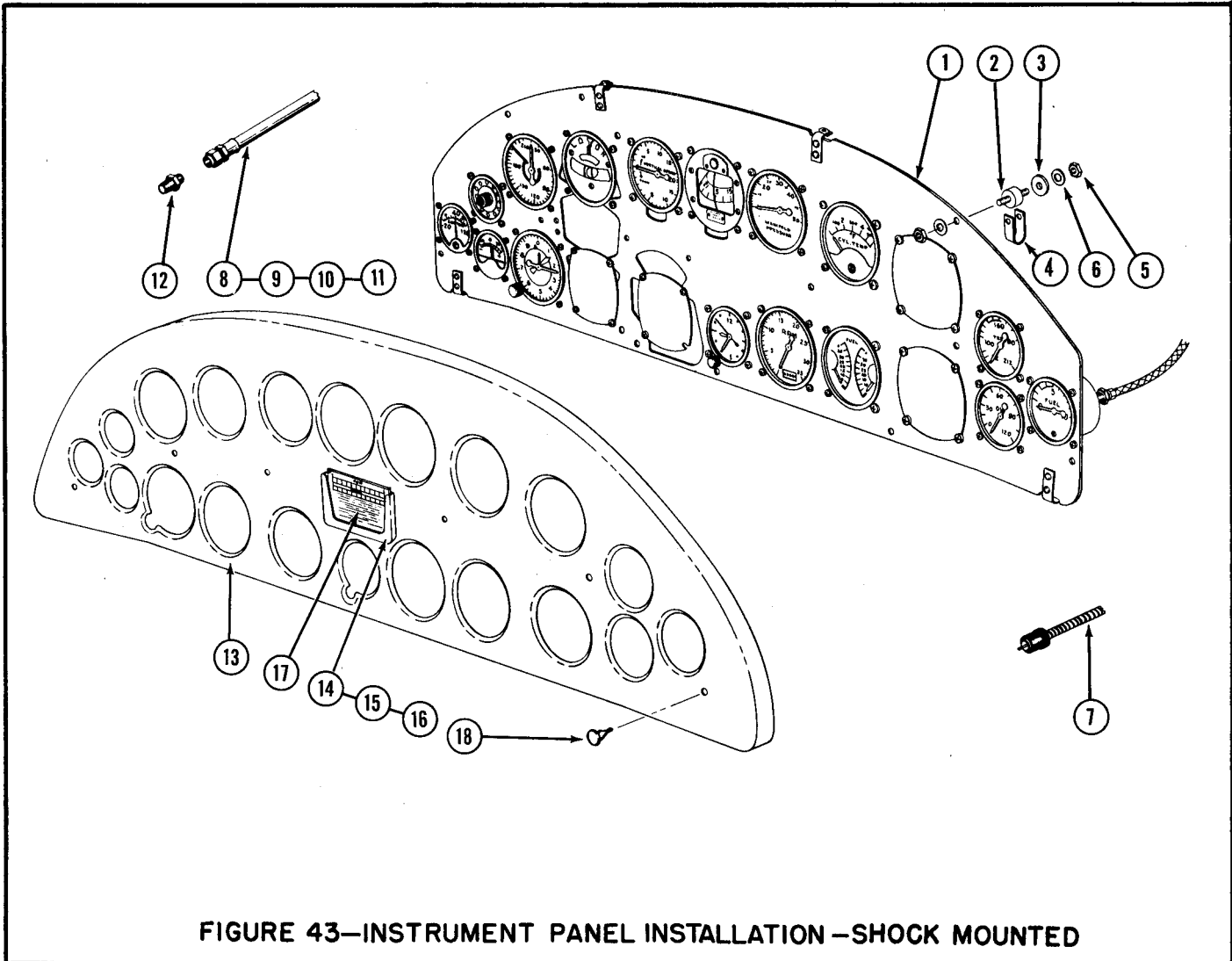


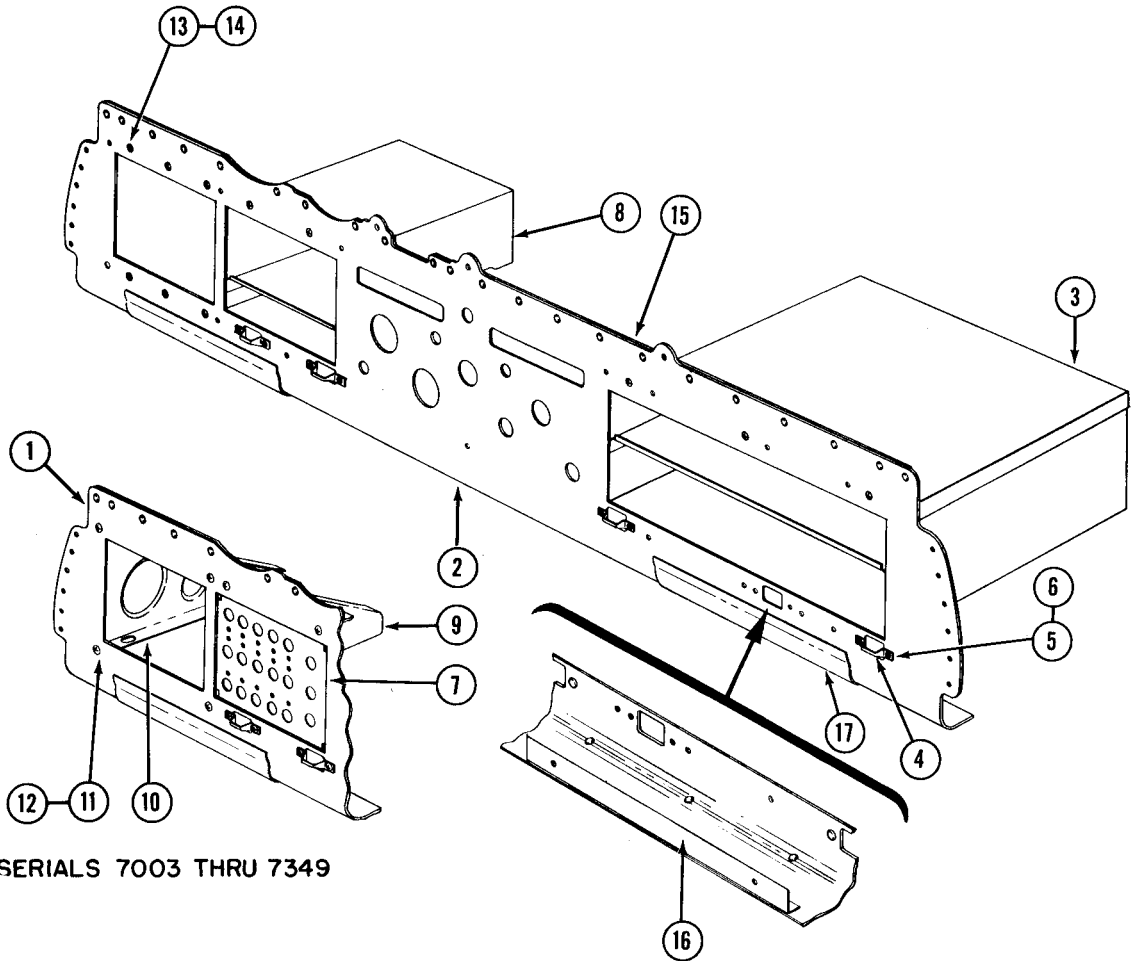
FIGURE 43—INSTRUMENT PANEL INSTALLATION—SHOCK MOUNTED

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Panel Installation - Shock mounted (3011447)	Ref	Ref
		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 - Unlted Carr (Attach cover)(Eff. serials 7287 & on)	6	6

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG



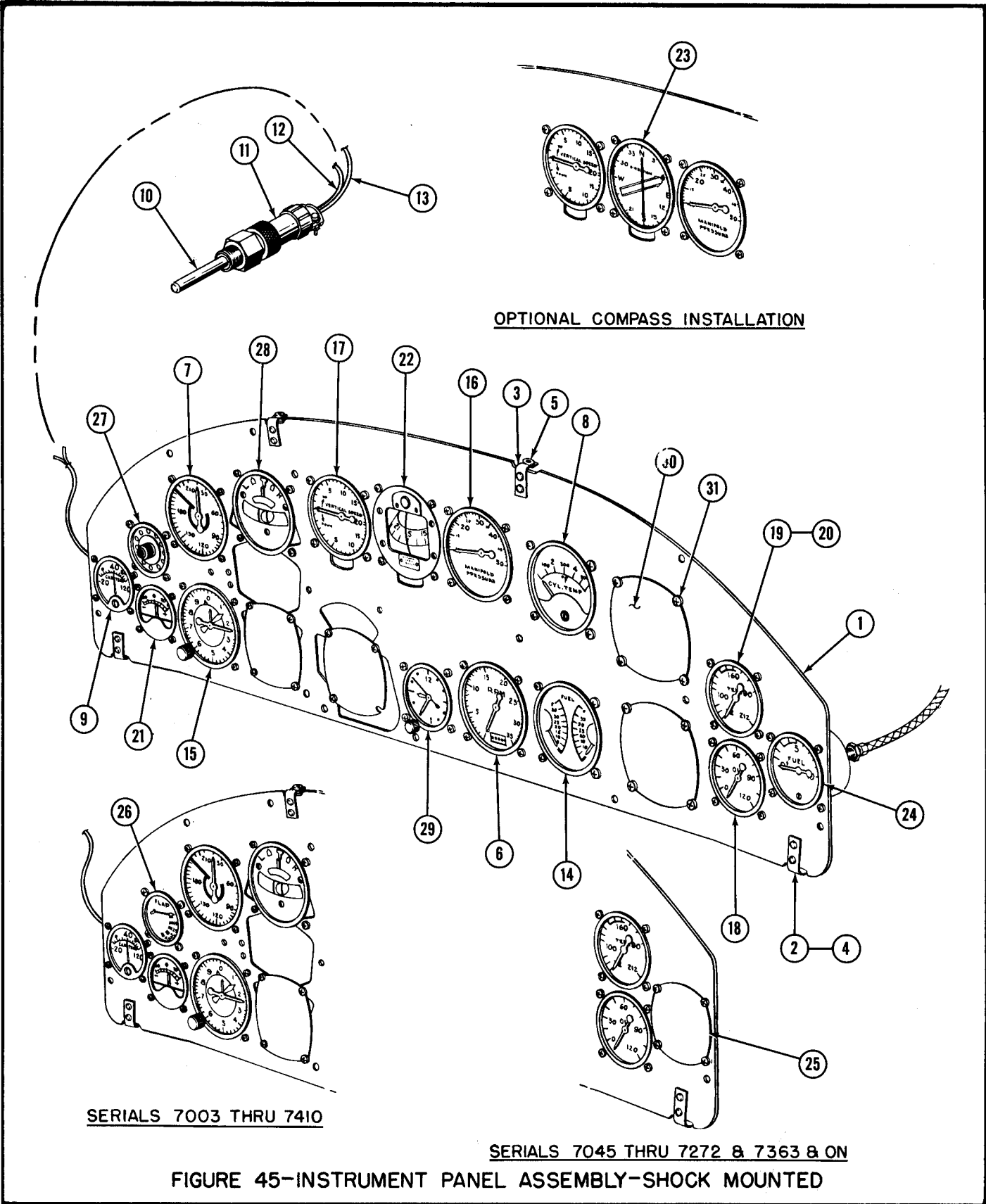
SERIALS 7003 THRU 7349

FIGURE 44-PANEL ASSEMBLY-STATIONARY

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0311480	Panel Assembly - Stationary (Eff. serials 7003 thru 7349)						Ref	Ref
	0311808	Panel Assembly - Stationary (Eff. serials 7350 & on)						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



ILLUSTRATED PARTS CATALOG

FIGURE 45

Instrument Panel Assembly - Shock Mounted

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0311447-9	Panel Assembly - Shock (190) (see figure 42 for NHA) (serials 7411 & on)						Ref	
	0311447-10	Panel Assembly - Shock (195) (see figure 42 for NHA) (serials 7411 & on)							Ref
45-1	0311557-3	Panel - Shock mounted instrument						1	1
-2	0311556-3	Clip - (Attach cover) (serials 7003 & on)						2	2
-3	0311556-5	Clip - (Attach cover) (serials 7003 & on)						2	2
-4	NAS395-14-3	Nutplate - (Serials 7003 & on)						2	2
-5	AN931-3-5	Grommet - (Serials 7003 & on)						1	1
-6	0311014-22	Tachometer - Standard equipment (serials 7901 thru 16080)						1	1
	0311014-6	Tachometer - Standard equipment (serials 16181 & on)						1	
	0311014-8	Tachometer - Standard equipment (serials 16181 & on)							1
	0311060-3	Tachometer - Standard equipment (serials 16181 & on)							1
	0311015-1	Indicator - Airspeed (serials 7003 thru 7450)						1	1
-7	0311015-3	Indicator - Airspeed (serials 7451 thru 16083)						1	1
	0311015-4	Indicator - Airspeed (serials 16084 & on)						1	1
-8	0311018-2	Gage - Cylinder head temperature (195 only)							1
	0311018-4	Gage - Cylinder head temperature (190)only						1	
	0311018-7	Lead - Thermocouple to gage						1	1
-9	0311020-5	Gage - Carburetor air temperature (190 only)						1	
	0311020-6	Gage - Carburetor air temperature (195 only)							1
	0311020-10	Wire Assembly - Carburetor air temperature						1	1
-10	0311020-7	Bulb - Carburetor air temperature (see figure 58)						Ref	Ref
-11	AN3106-125-35	Plug - Carburetor air temperature						1	1
-12	030000-108	Wire - Plug to gage						1	1
-13	030000-109	Wire - Plug to gage						1	1
-14	0311021-1	Indicator - Fuel quantity						1	1
-15	0311026-1	Altimeter - Sensitive						1	1
-16	0311029-1	Gage - Manifold Pressure						1	1
-17	0311034-1	Indicator - Vertical speed						1	1
-18	0311035-3	Gage - Oil pressure						1	1
-19	0311036-1	Gage - Oil temperature						1	1
-20	AN365-B632	Nut - (Attach oil temperature gage)						4	4
	0311037-50	Ammeter Kit						1	1
	NAF1091-1-60	Shunt - Generator (see figure 42 item 36)						1	1
-21	0311037-5	Ammeter - (Serials 7532 & on)						1	1
-22	0311040-1	Compass - Magnetic						1	1
-23	0311016	Indicator - Directional (optional) (interchangeable with compass)						1	1
-24	0311045-1	Gage - Fuel pressure (serials 7003 thru 7271)						1	
	0311045-2	Gage - Fuel pressure (serials 7003 thru 7045, 7273 & 7363 & on)							1
-25	0413206	Cover - Fuel pressure gage opening (serials 7045 thru 7272, & 7363 & on)						1	1
-26	0311047-1	Indicator - Flap (serials 7003 thru 7410)						1	1
-27	1-02-000	Indicator - Stall warning (serials 7411 & on)						1	1
-28	0411009-2	Indicator - Turn & bank						1	1
-29	0411010-2	Clock						1	1
-30	0311789	Cover - Optional instrument hole						4	4
-31	AN515-8R8	Screw - (Attach cover)						16	16

## ILLUSTRATED PARTS CATALOG

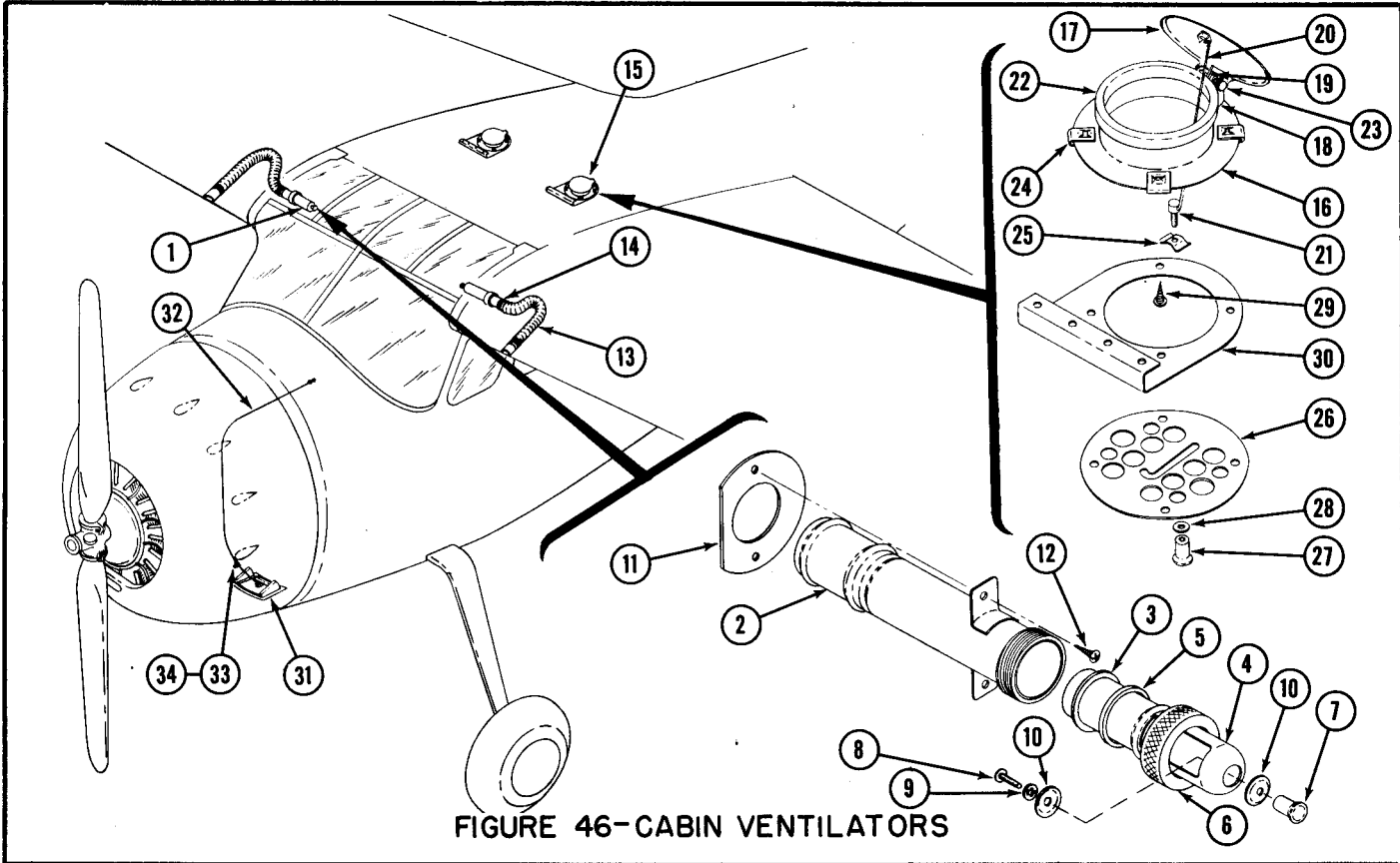


FIGURE 46-CABIN VENTILATORS

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Cabin Ventilators Installation	1	1
46-1	0311751	Outlet Assembly - Front cabin air vent	2	2
-2	0311750	Tube Assembly - Air vent	1	1
-3	0311762	Retainer - Cabin air vent seal	1	1
-4	0413155-3	Air Outlet - Cabin vent	1	1
-5	0311751-2	Seal - Cabin air vent felt	1	1
-6	0323124	Nut - Air vent	1	1
-7	0411092	Knob - Air vent pull	1	1
-8	AN526R832-5	Screw - (Attach knob)	1	1
-9	AN936A8	Washer - Air vent inside	1	1
-10	0413228	Washer - Air vent outside	1	1
-11	0311744	Seal - Cabin ventilator	2	2
-12	PK76XZ-8-6	Screw - (Attach outlet & assembly to root rib)	4	4
-13	0450320-5	Hose - Cabin air (see figure 4)	Ref	Ref
-14	NAS397-32-3	Clamp - (Tinnerman A3499-32-3)	2	2
-15	0311737	Cup Assembly - Ventilator	1	1
-16	0311737-3	Cup - Ventilator	1	1
-17	0311734	Lid Assembly - Ventilator	1	1
-18	0311735	Bracket - Ventilator lid hinge	1	1
-19	0311740	Spring - Ventilator cup	1	1
-20	0311739	Rod - Ventilator push-pull	1	1
-21	0311738	Stud - Ventilator handle	1	1
-22	0411875-12	Moulding - Ventilator	1	1
-23	0452120	Pin - Hinge	1	1
-24	NAS395-14-3	Nut - (Tinnerman A1274-8Z-3)	4	4
-25	0311743	Spring - Ventilator anti-rattle	2	2
-26	0311742	Grill - Ventilator	2	2
-27	0411092	Knob - Ventilator push-pull	2	2
-28	AN960-416L	Washer - Knob attachment	2	2
-29	PK76XZ-8-6	Screw - (Attach grill)	8	8
-30	0311736	Bracket - Ventilator mounting (see figure 20 for NHA)	Ref	Ref
-31	0311350	Door Assembly - Cabin ventilator (see figure 21 for NHA)	Ref	Ref
-32	0311030-1	Control - Cabin vent (see figure 42)	1	1
-33	NAS435-D-4	Clamp - (Tinnerman A3047A-5)	1	1
-34	PK76XZ-8-8	Screw - (Attach clamp)	1	1

ILLUSTRATED PARTS CATALOG

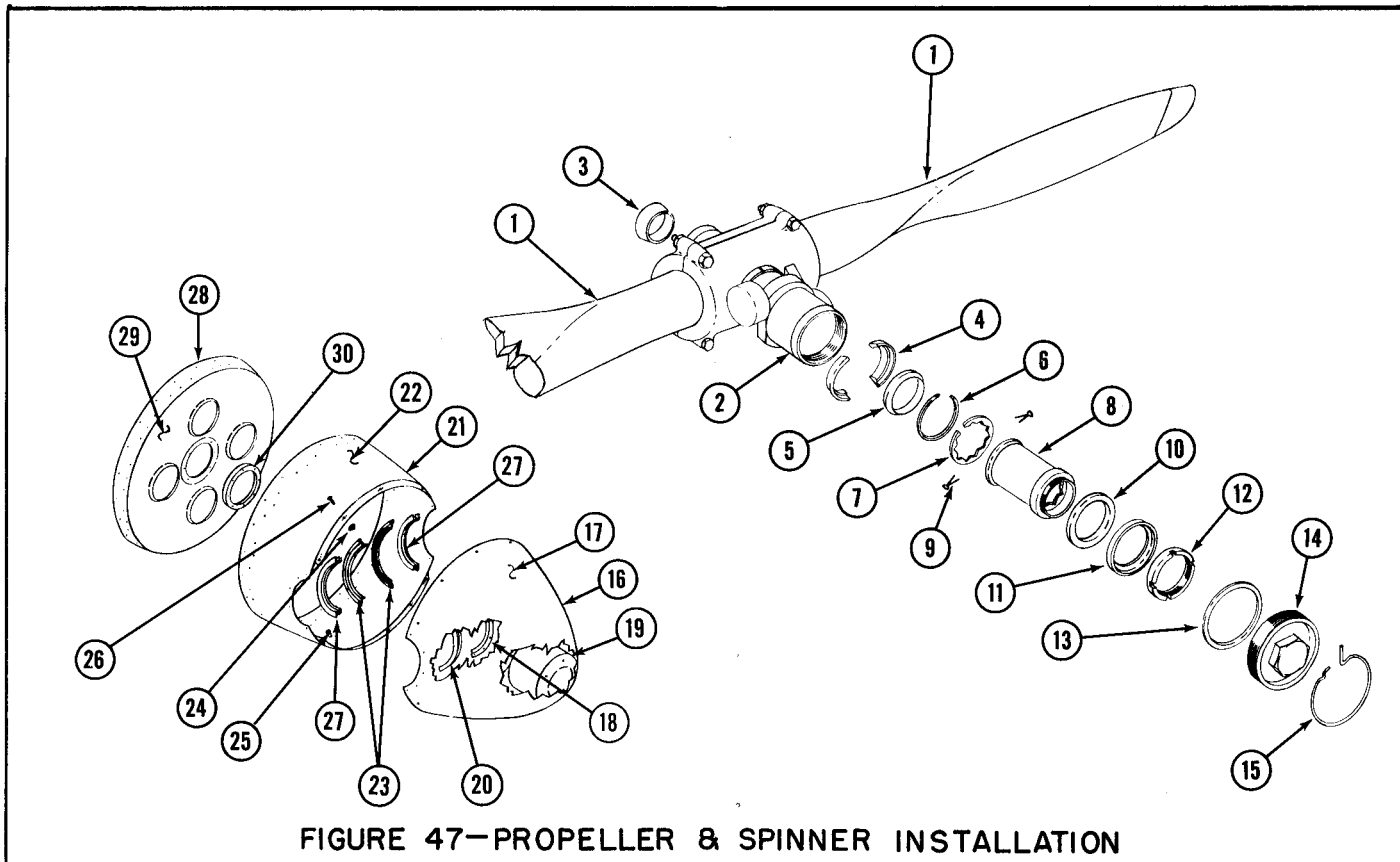


FIGURE 47-PROPELLER & SPINNER INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS								
			1	2	3	4	5	6	190	195	
	0350102	Propeller Installation (Hamilton Standard)								1	1
47-1	6135A-15	Blade - Propeller								1	1
-2	2B20	Hub Assembly - Propeller								1	1
-3	0350282-1	Cone - Rear (AN5008-20)								1	1
-4	0350102-13	Cone - Front (Hamilton Standard 50689)								1	1
-5	0350102-15	Gasket - Front cone (Hamilton Standard 50115)								1	1
-6	0350102-12	Ring - Snap (Hamilton Standard 50689E)								1	1
-7	0350102-11	Lock Ring - Piston (Hamilton Standard 50122)								1	1
-8	0350102-9	Piston - Propeller (Hamilton Standard 50686)								1	1
-9	AN380-2-2	Pin - Cotter								2	2
-10	0350102-8	Gasket - Inboard piston (Hamilton Standard 50287)								1	1
-11	0350102-7	Gasket - Outboard piston (Hamilton Standard 50116)								1	1
-12	0350102-4	Nut - Packing (Hamilton Standard 50687)								1	1
-13	0350102-3	Gasket - Cylinder head (Hamilton Standard 50117)								1	1
-14	0350102-14	Cylinder Head - (Hamilton Standard 50123)								1	1
-15	0350102-2	Ring - Snap								1	1
	No Number *	Spinner Installation - Propeller (0352171 Ref)								1	1
16	0352171-2	Spinner Assembly - Front								1	1
-17	0352171-6	Skin - Front								1	1
18	0352171-7	Retainer - Front								2	2
-19	0352171-8	Housing								1	1
-20	0352179	Seal - Prop spinner								2	2
-21	0352171-3	Spinner Assembly - Rear								1	1
-22	0352171-5	Skin - Rear								1	1
-23	0352171-14	Retainer - Rear								2	2
-24	AN366F832	Nutplate								6	6
-25	22A17-82	Esna Anchor Nut								4	4
-26	AN526-832R8	Screw								10	10
-27	0352179	Seal - Prop spinner								2	2
-28	0352171-10	Bulkhead Assembly								1	1
-29	0352171-11	Support								1	1
-30	0352171-12	Bulkhead								1	1
		* For airplanes with serials prior to 16084, order Kit AK 9053-1 Model 195 Airplanes only									

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

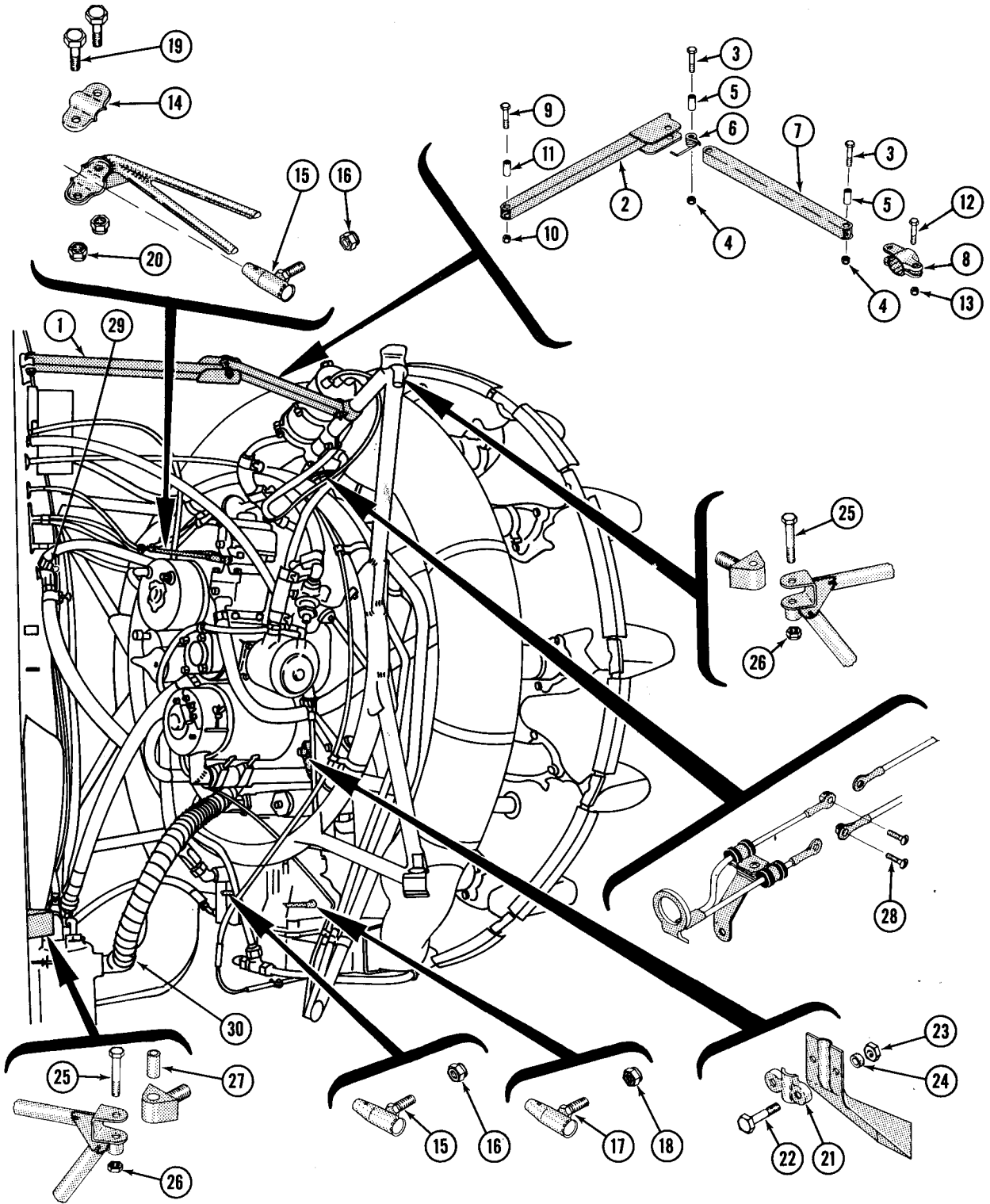


FIGURE 48 - JACOBS ENGINE INSTALLATION





ILLUSTRATED PARTS CATALOG

FIGURE 48

JACOBS ENGINE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Engine Installation - Jacobs							1
	0350100	Engine Assembly - Jacobs R-755-A2 (See figure 43)							1
48-1	0350289	Support Assembly - Engine service (replaces 0350251)							1
-2	0350293	Coupling Assembly - Engine service support							1
-3	AN4-7A	Bolt - (Attach coupling assembly)							2
-4	AN365-428	Nut - (Attach coupling assembly)							2
-5	NAS43-3-42	Spacer - Support assembly							2
-6	0350290	Spring - Engine service support							1
-7	0350291	Tube - Engine service support							1
-8	0350248	Clamp - Engine service support							1
-9	AN3-11A	Bolt - (Attach engine support)							1
-10	AN365-1032	Nut - (Attach engine support)							1
-11	NAS43-3-42	Spacer - Engine service support							1
-12	AN3-6A	Bolt - (Attach service support to engine mount)							1
-13	AN365-1032	Nut - (Attach service support to engine mount)							1
-14	0350156	Clamp - Control (propeller control)							1
-15	0550158	Ball Joint							2
-16	AN365-428	Nut - (Attach ball joint)							2
-17	AN276-6	Ball Joint							1
-18	AN365-428	Nut - (Attach ball joint)							1
-19	AN3-6A	Bolt - (Attach clamp)							2
-20	AN365-1032	Nut - (Attach clamp)							2
-21	0350156	Clamp - Throttle & mixture control							2
-22	AN3-6A	Bolt - (Attach clamp)							4
-23	AN365-1032	Nut - (Attach clamp)							4
-24	NAS43-3-9	Spacer							4
-25	AN6-26A	Bolt - (Attach engine at firewall)							4
-26	AN365-624	Nut - (Attach engine at firewall)							4
-27	0351109	Bushing - Engine mount left							2
-28	AN515B6-5	Screw - (Attach thermocouple lead)							2
-29	NAS397-18-59	Clamp - (Tinnerman A3122-18-59)							4
-30	NAS395-12-59	Clamp - (Tinnerman A3122-12-59)							2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE





## 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	21F483	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		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 (Pescos 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



ILLUSTRATED PARTS CATALOG

FIGURE 49

JACOBS ENGINE ASSEMBLY (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
49-73	AN960-10			Washer					2
-74	AN365-1032			Nut					1
-75	O350259-3			Support - Upper breather line clamp					1
-76	NAS434-D12			Clamp					1
-77	PK76XZ-10-8			Screw - (Attach clamp)					1
-78	O300106-59			Line - Crankcase vent					1
-79	AN884-12-15			Hose - Vent line					1
-80	NAS395-18			Clamp					2
-81	NAS434-D7			Clamp					2
-82	AN375-D20			Clamp - (Tinnerman A3052A-20)					2
-83	AN742-D7			Clamp - (Tinnerman A2980A-7)					2
-84	PK76XZ-8-8			Screw					2
-85	O311018-6			Thermocouple - (Thermo electric 1B14B)					1
-86	O350147			Support - Thermocouple lead					1
-87	AN742-6C			Clamp					2
-88	PK76XZ-9-10			Screw - (Attach clamp)					1
-89	NAS395-14-3			Nutplate					1
-90	AN823-2B			Elbow					1
-91	O350255-1			Hose - Fuel primer					1
-92	AN884-12-48			Hose - Fuel line					1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

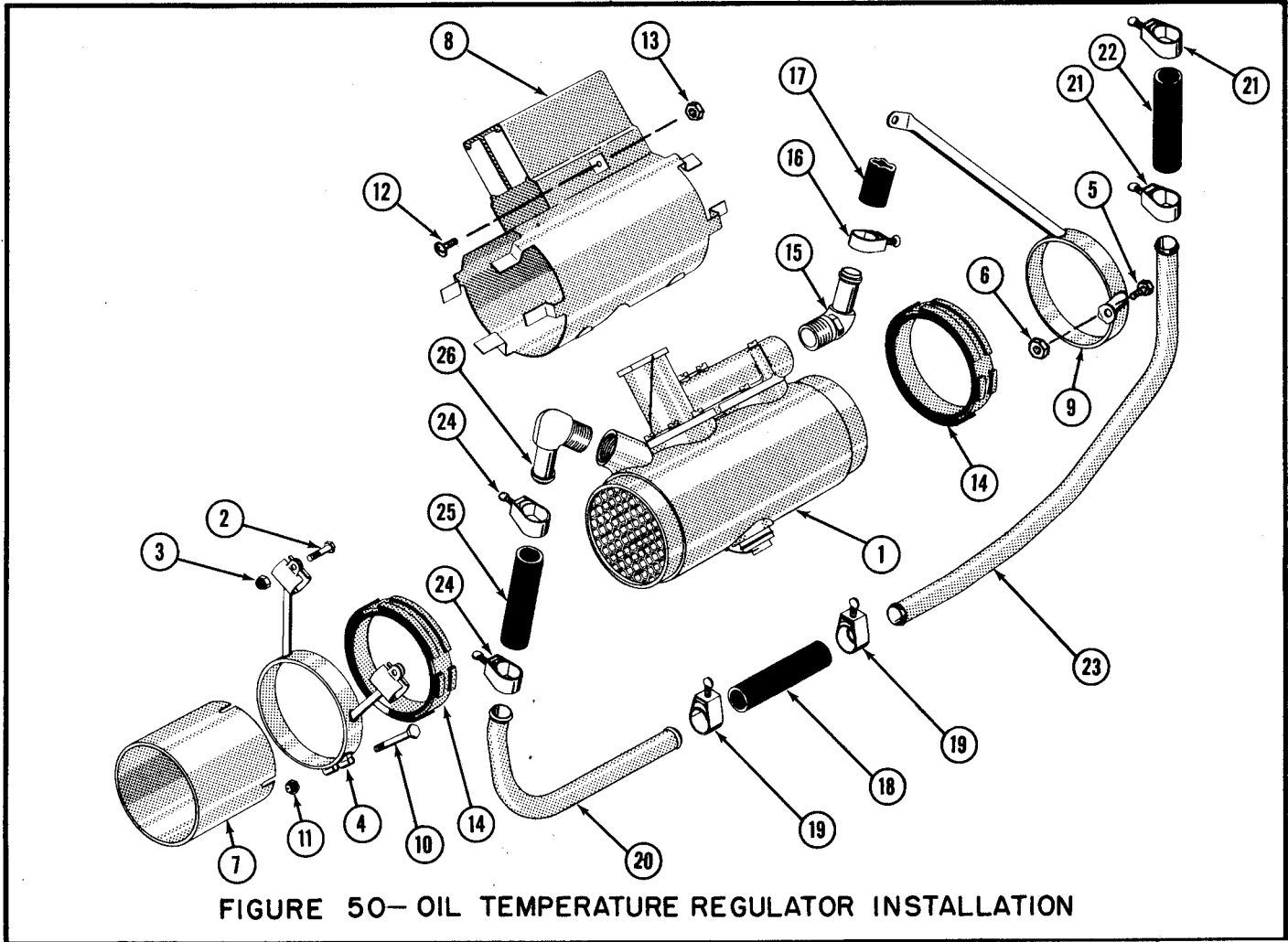


FIGURE 50— OIL TEMPERATURE REGULATOR INSTALLATION

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

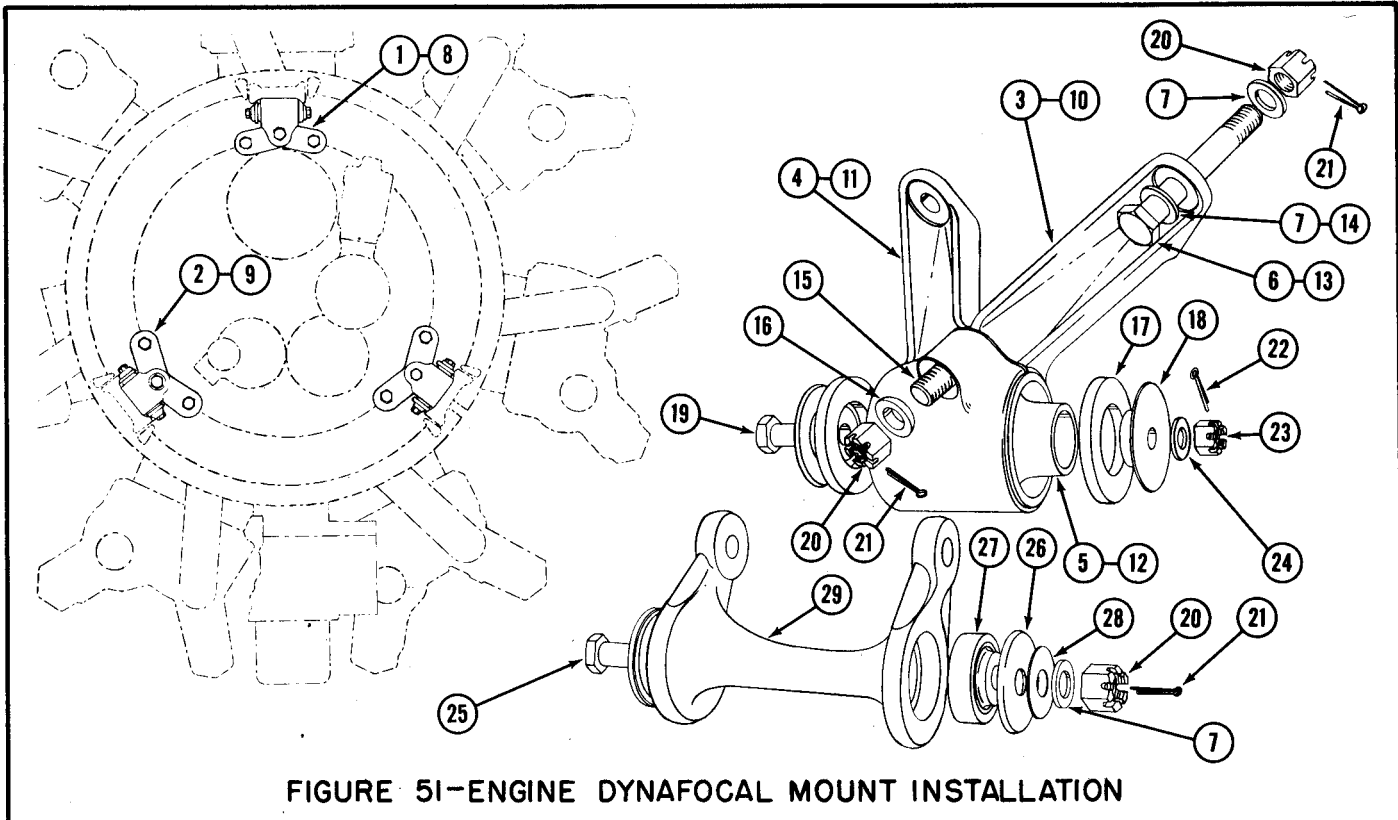


FIGURE 51-ENGINE DYNAFOCAL MOUNT INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS		
		1	2	3	4	5	6	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.							

## ILLUSTRATED PARTS CATALOG

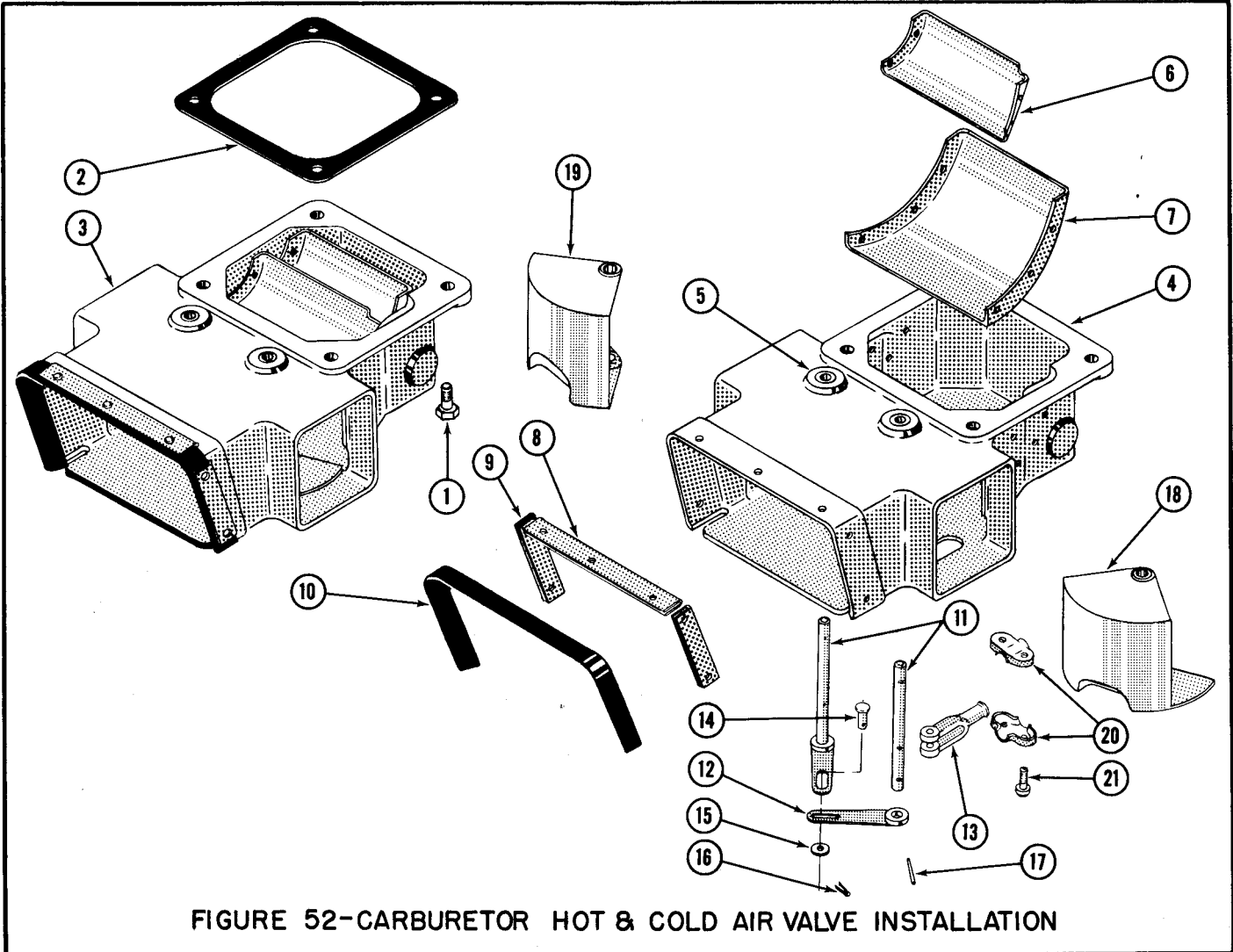
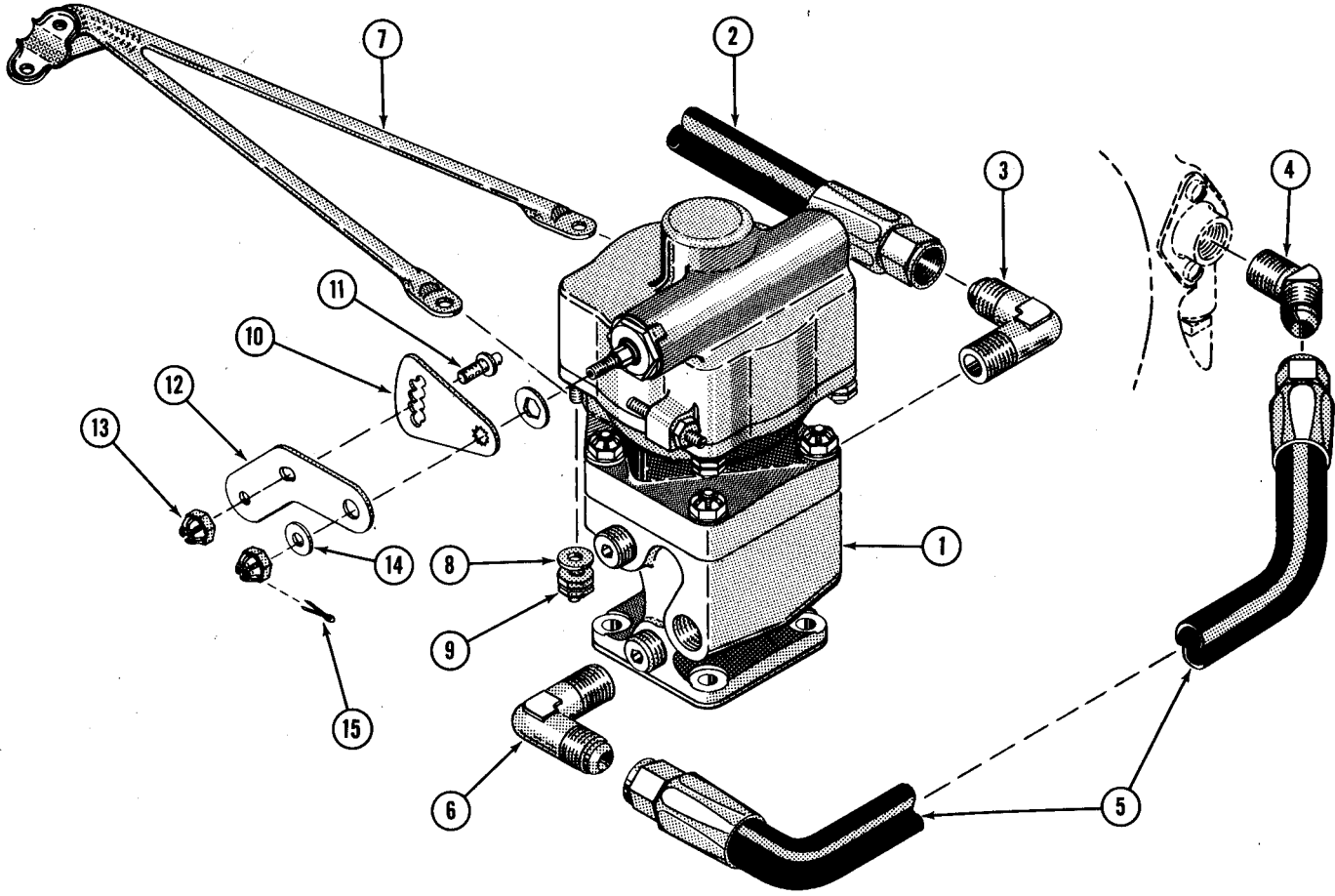


FIGURE 52-CARBURETOR HOT &amp; COLD AIR VALVE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS							
			190	195						
			1	2	3	4	5	6		
		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



USED WITH JACOBS ENGINE

FIGURE 53-PROPELLER GOVERNOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS							
			190	195						
			1	2	3	4	5	6		
		Governor Installation - Propeller (see figure 49 for NHA)								Ref
53-1	0350198	Governor - Propeller (United Aircraft Corp, Model 1A4-G5)								1
-2	AN6260-6-34-1/2	Hose Assembly - (Governor to engine case)								1
-3	AN822-6B	Elbow								1
-4	AN823-6	Elbow								1
-5	AN6260-6-24-1/2	Hose Assembly - (Governor to engine case)								1
-6	AN822-6B	Elbow								1
-7	0350132	Bracket Assembly - Governor								1
-8	AN960-416L	Washer								2
-9	AN364-428	Nut - (Attach bracket)								2
-10	0350155	Plate								1
-11	0350151	Pin								1
-12	0350122	Arm								1
-13	AN365-1032	Nut - (Attach arm)								1
-14	AN960-516	Washer								1
-15	AN380-2-2	Pin - Cotter								1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



ILLUSTRATED PARTS CATALOG

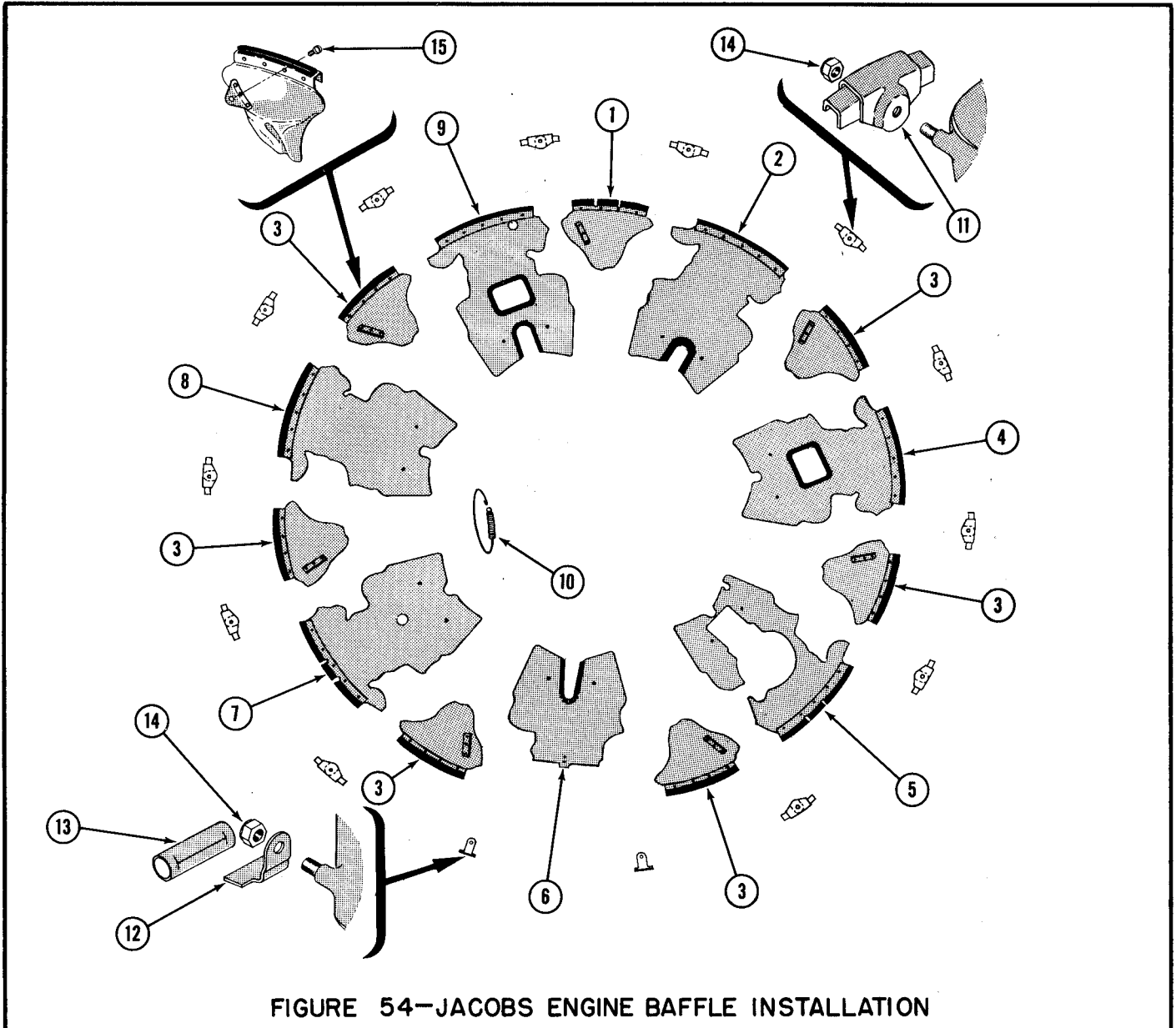


FIGURE 54—JACOBS ENGINE BAFFLE INSTALLATION

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								1
-2	0350182								1
-3	0350238								6
-4	0350181								1
-5	0350227								1
-6	0350175								1
-7	0350179								1
-8	0350177								1
-9	0350172								1
-10	S-4-26								7
-11	0352120-3								12
	0352175								2
-12	0352175-2								1
-13	0352175-3								1
-14	AN365-524								14
-15	AN503-416-8								7

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

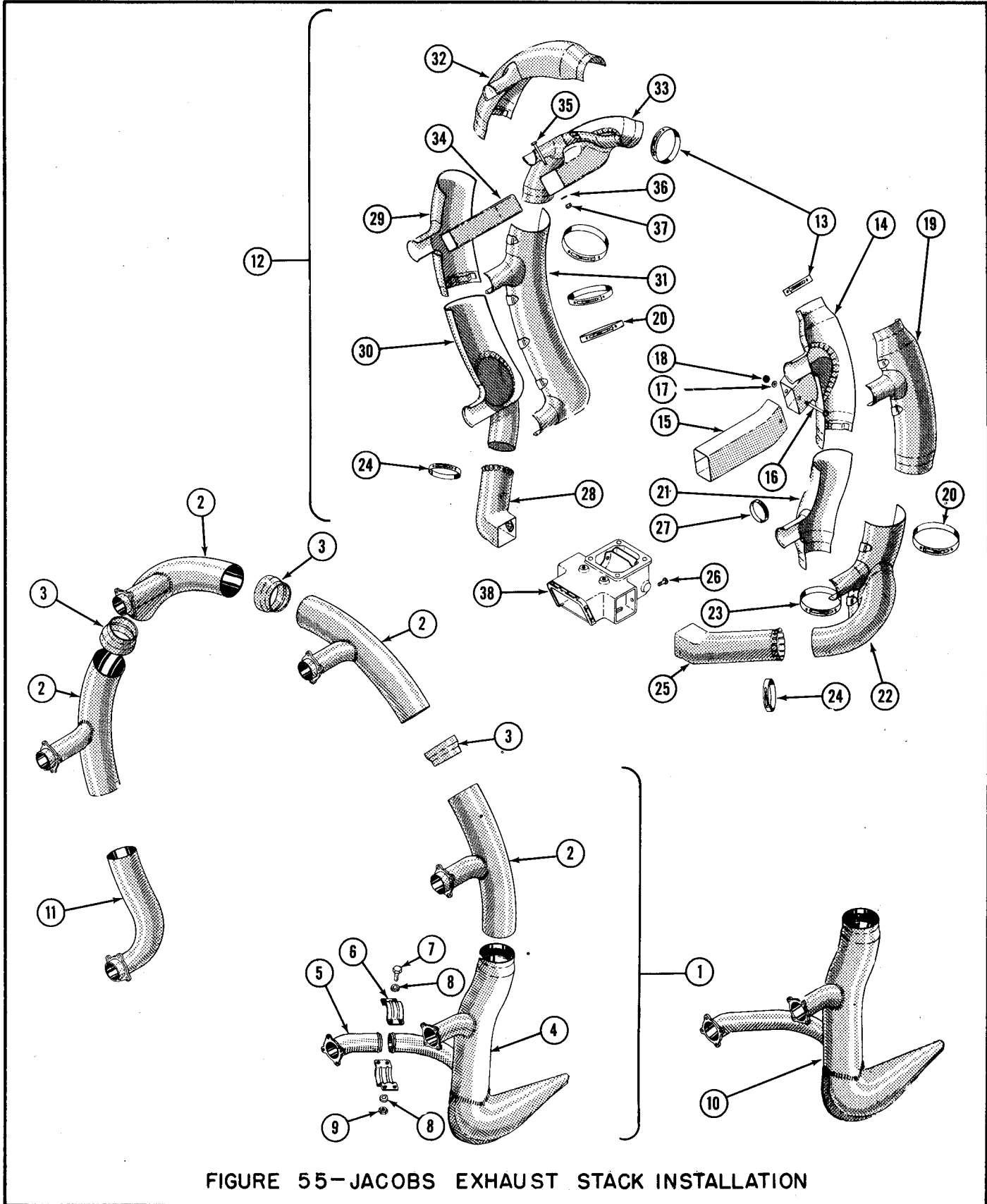


FIGURE 55-JACOBS EXHAUST STACK INSTALLATION



ILLUSTRATED PARTS CATALOG

FIGURE 55 JACOBS EXHAUST STACK INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Stack Installation - Exhaust (see figure 49 for NHA)							Ref
55-1	0350100-22							1	
	0350100-10							1	
-2	0350187							4	
	0350163							4	
-3	0350143							3	
	0350240-1							1	
-4	0350240-3							1	
-5	0350186-8							1	
-6	0350186-20							2	
-7	AN3-5A							4	
-8	AN960-10							8	
-9	AN365-1032C							4	
-10	0350240							1	
-11	0350161							1	
-12	0350100-11							1	
-13	NAS398-53P							2	
-14	0350207							1	
-15	0350209							1	
-16	AN3-26A							1	
-17	AN960-10							1	
-18	AN365-1032							1	
-19	0350206							1	
-20	NAS398-75P							4	
-21	0350205							1	
-22	0350204							1	
-23	NAS398-62P							1	
-24	NAS398-50P							2	
-25	0350234							1	
-26	AN500-8-7							2	
-27	NAS397-36P							5	
-28	0350233							1	
-29	0350224-6							1	
-30	0350224-7							1	
-31	0350225							1	
-32	0350222							1	
-33	0350266							1	
-34	0350226-11							1	
-35	AN3-26A							1	
-36	AN960-10							1	
-37	AN365-1032							1	
-38	0350165							1	

FIGURE 56 JACOBS ENGINE COWL INSTALLATION

		Cowl Installation - Jacobs engine.							1
56-1	0352126-2							1	
-2	0352126-12							1	
-3	0352126-7							1	
-4	0352126-13							1	
-5	0352126-14							1	
-6	S5-200							4	
-7	A5-35							2	
-8	AJ5-40							3	
	GA5-375							5	
	0352126-31							1	
-9	0352126-26							1	
-10	0352126-6							1	
-11	0352126-30							1	
-12	S5-200							1	
-13	A5-35							2	
-14	AJ5-40							2	
-15	AW5-35							1	
	GA5-375							5	
-16	0352126-31							1	
-17	0352126-8							1	
-18	A5-35							3	
-19	AJ5-40							2	
-20	AW5-35							1	
	GA5-375							6	
	0352126-27							1	
	0352100							1	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

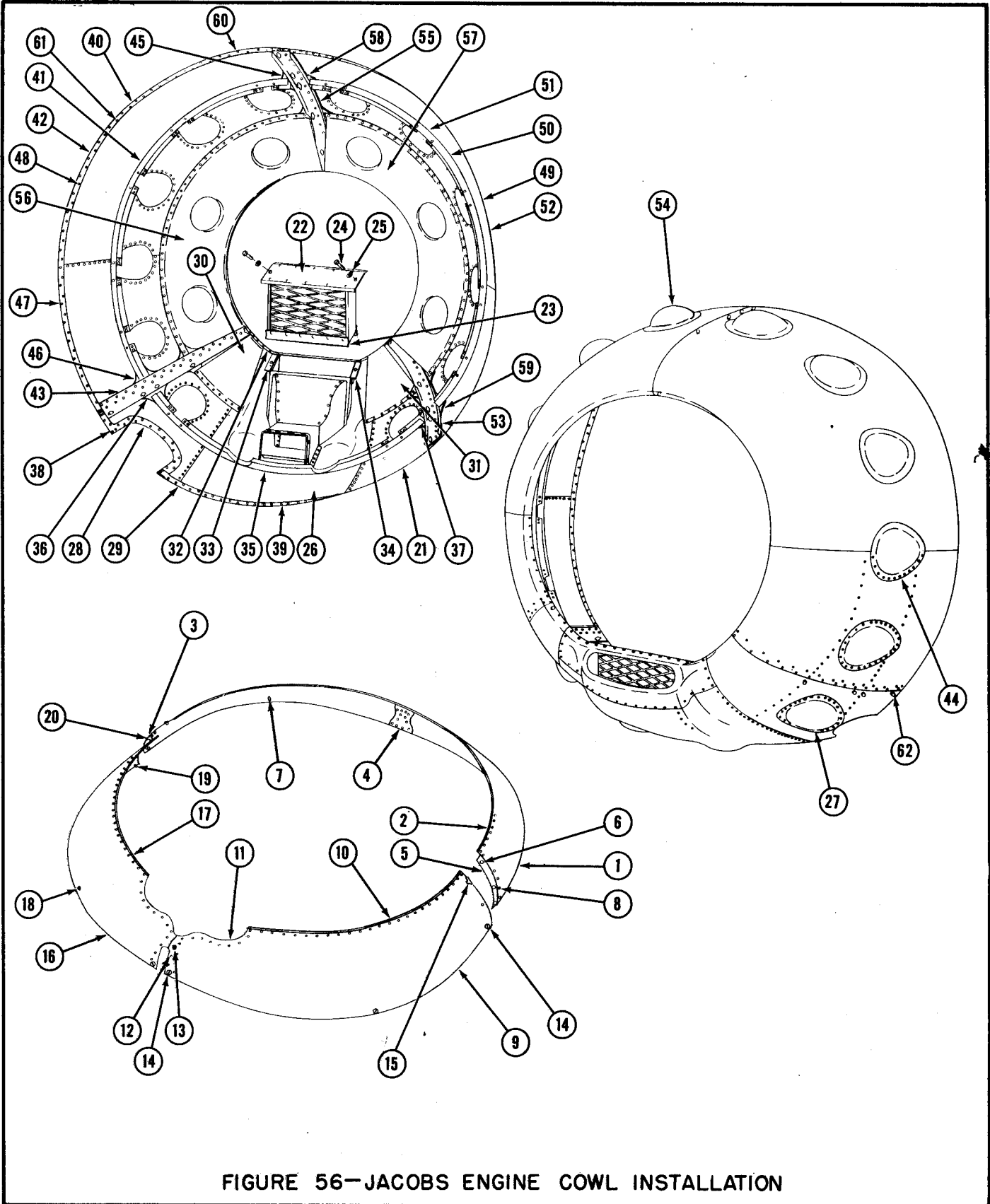


FIGURE 56—JACOBS ENGINE COWL INSTALLATION



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

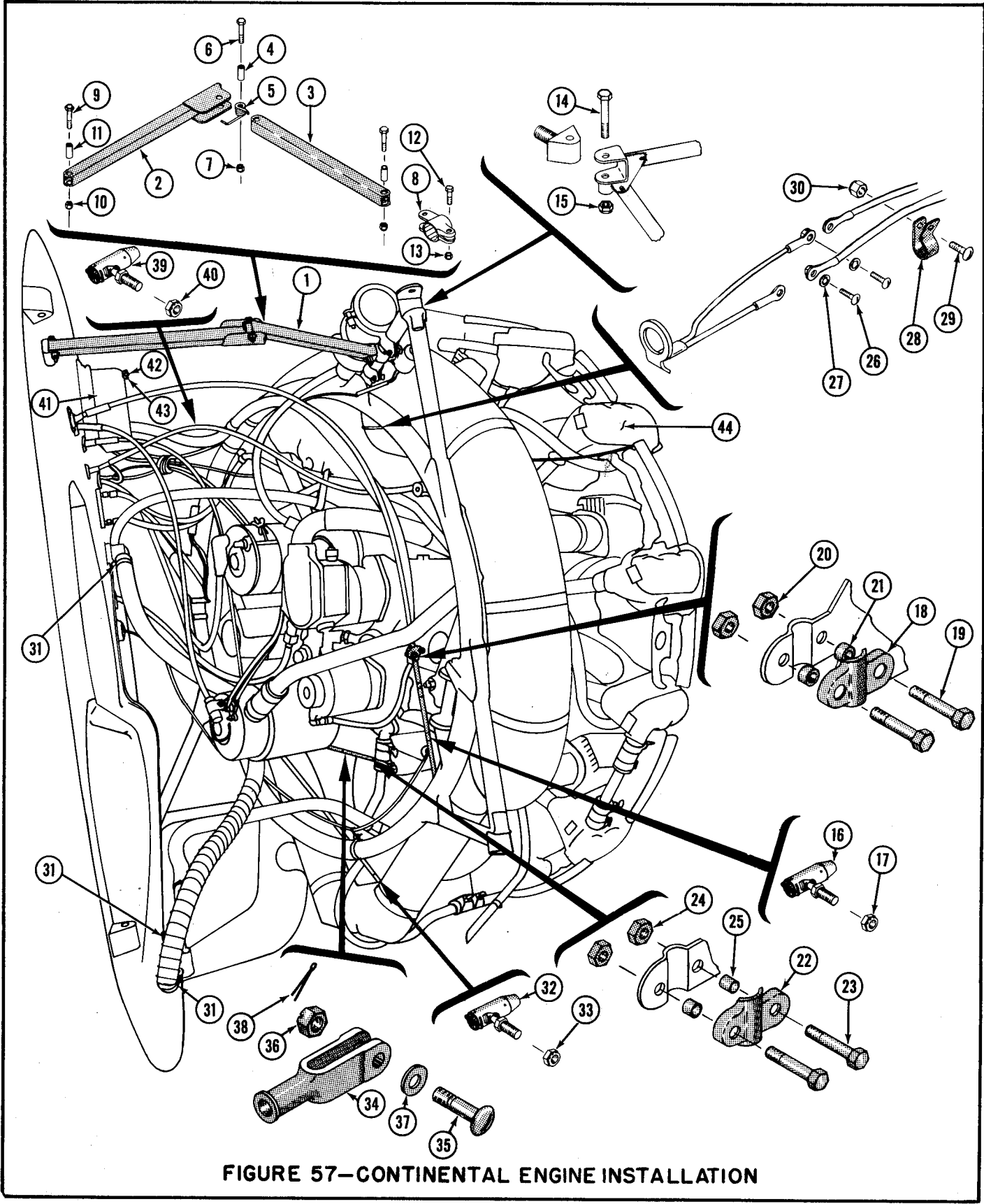


FIGURE 57—CONTINENTAL ENGINE INSTALLATION



ILLUSTRATED PARTS CATALOG

FIGURE 57

CONTINENTAL ENGINE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Continental Engine Installation						1	
57-1	0350289							1	
-2	0350293							1	
-3	0350191							1	
-4	NAS43-3-42							2	
-5	0350290							1	
-6	AN3-10A							2	
-7	AN365-1032							2	
-8	0350248							1	
-9	AN3-11A							1	
-10	AN365-1032							1	
-11	NAS43-3-42							1	
-12	AN3-7A							1	
-13	AN365-1032							1	
-14	AN6-26A							4	
-15	AN365-624							4	
-16	0550158							1	
-17	AN365-1032							1	
-18	0350156							1	
-19	AN3-6A							2	
-20	AN365-1032							2	
-21	NAS43-3-9							2	
-22	0350156							1	
-23	AN3-6A							3	
-24	AN365-1032							3	
-25	NAS43-3-9							2	
-26	AN515-B6-5							2	
-27	AN936-A6B							2	
-28	AN755-5							1	
-29	AN526-832-R8							1	
-30	AN365-832							1	
-31	NAS397-18							6	
-32	0550158							1	
-33	AN365-1032							1	
-34	AN486-3							1	
-35	AN23-13							1	
-36	AN320-3							1	
-37	AN960-10L							1	
-38	AN380-2-2							1	
-39	0550158							1	
-40	AN365-1032							1	
-41	0311825-2							1	
-42	AN4-6A							3	
-43	AN365-428							3	
	AN5525-1							1	
-44	0350200							1	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

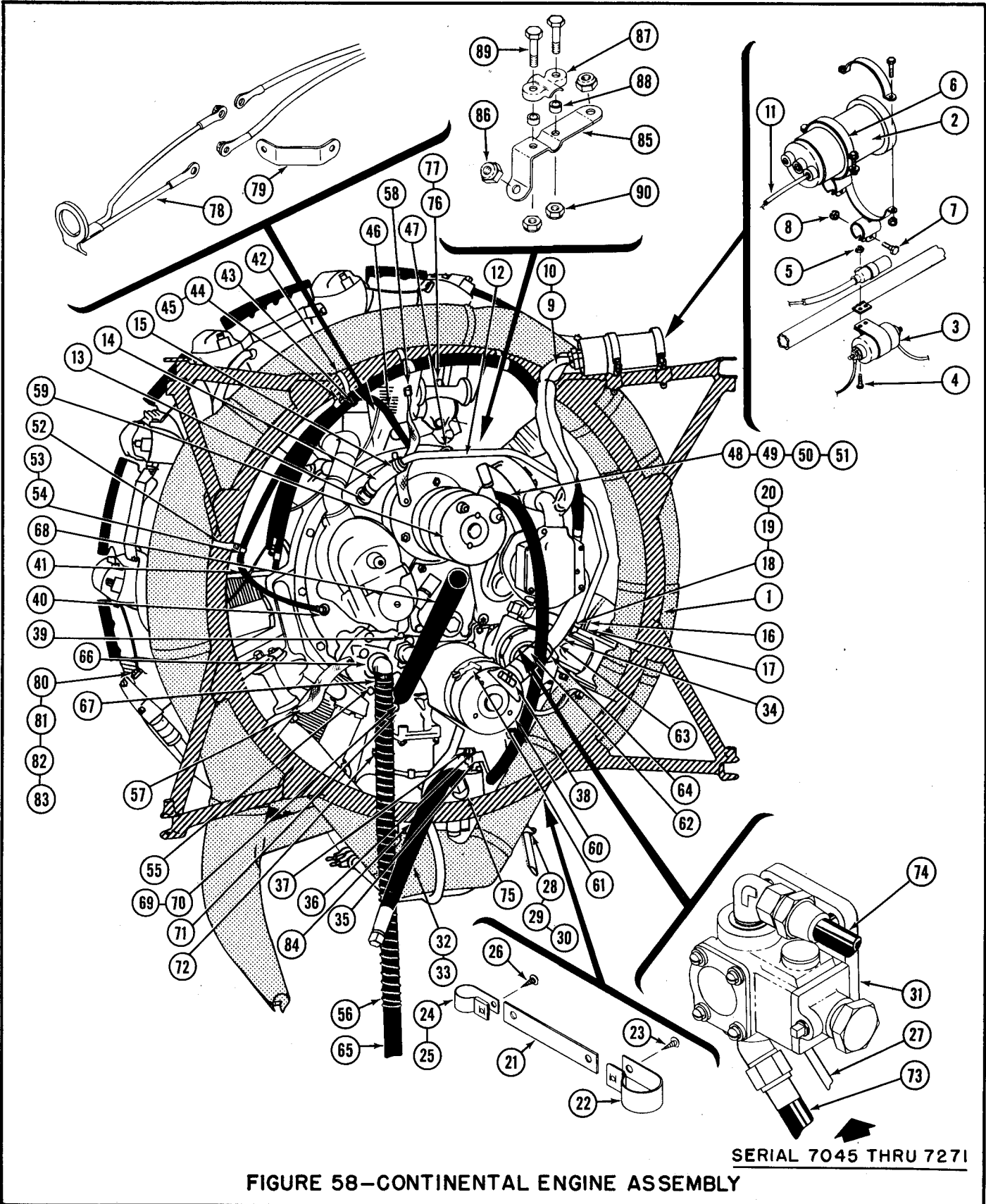


FIGURE 58—CONTINENTAL ENGINE ASSEMBLY





ILLUSTRATED PARTS CATALOG

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
								Ref	
	0350200	Engine Assembly - Continental W670 (see figure 57 for NHA)						Ref	
		Valve Installation - Carburetor hot & cold air (see figure 59) for breakdown)						1	
		Propeller Governor Installation (see figure 60 for breakdown)						1	
		Baffle Installation - Continental engine (see figure 61 for breakdown)						1	
		Exhaust Stack Installation - Continental engine (see figure 62 for breakdown)						1	
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

ILLUSTRATED PARTS CATALOG

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	

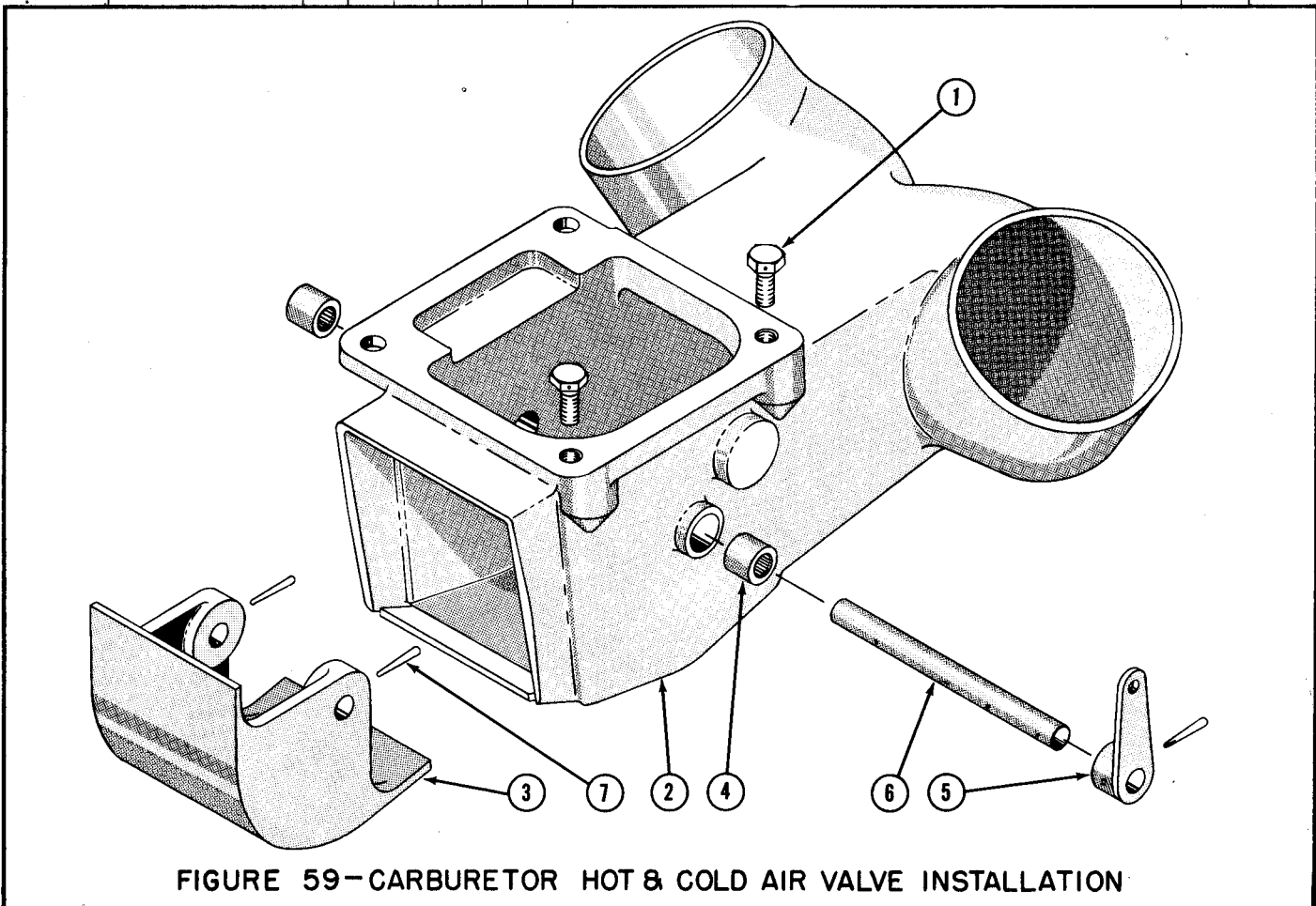


FIGURE 59-CARBURETOR HOT & COLD AIR VALVE INSTALLATION

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

## ILLUSTRATED PARTS CATALOG

FIGURE 59

CARBURETOR HOT &amp; 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 & cold air (see figure 58 for NHA)						Ref	
59-1	AN4H-7							2	
	0350106							1	
-2	0350106-3							1	
-3	0350107							1	
-4	B-55							2	
-5	0350157							1	
-6	0350275							1	
-7	AN385-50-6							3	

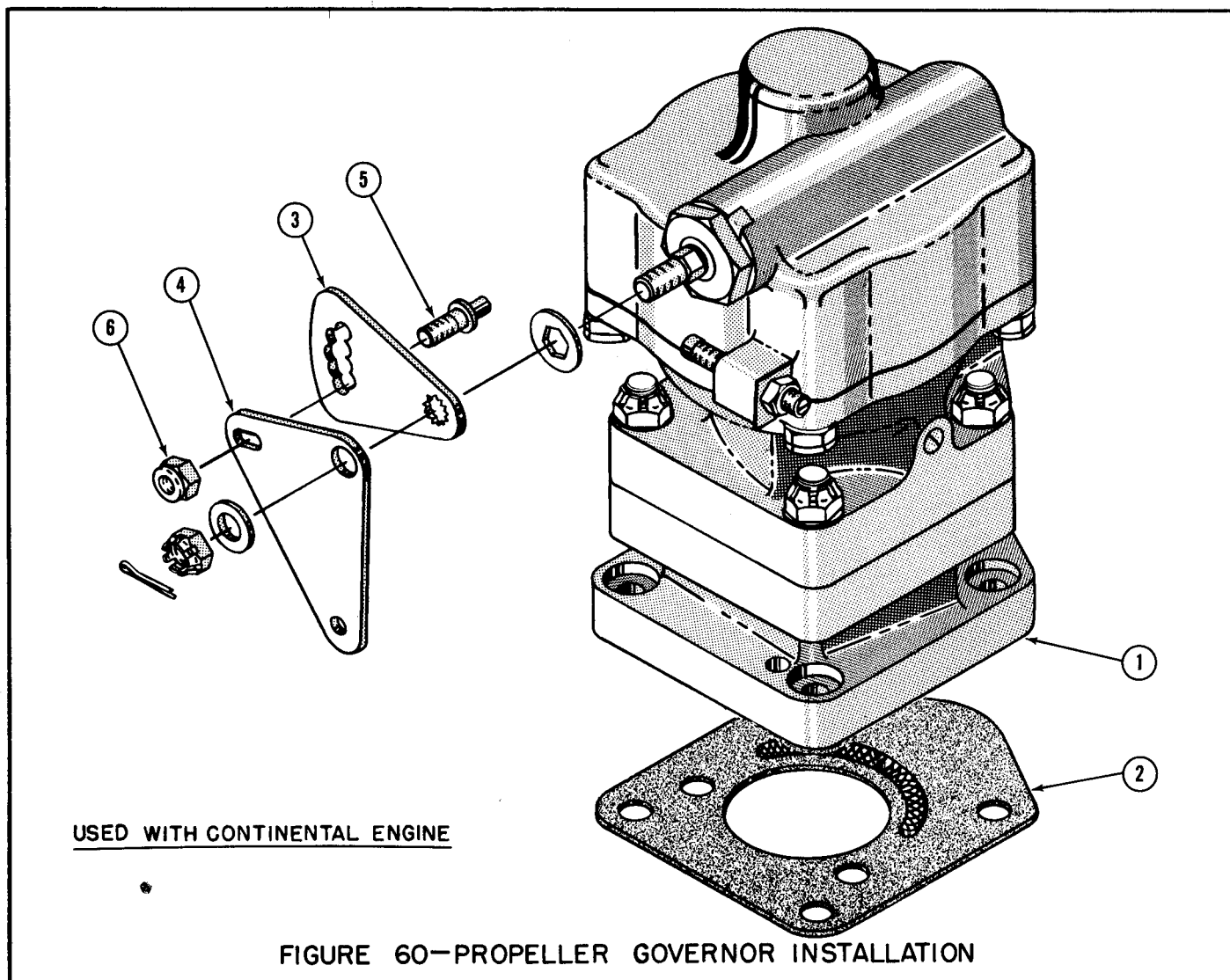


FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Governor Installation - Propeller (see figure 58 for NHA)						Ref	
60-1	0350001							1	
-2	57354							1	
-3	0350155							1	
-4	0350150							1	
-5	0350151							1	
-6	AN365-1032							1	

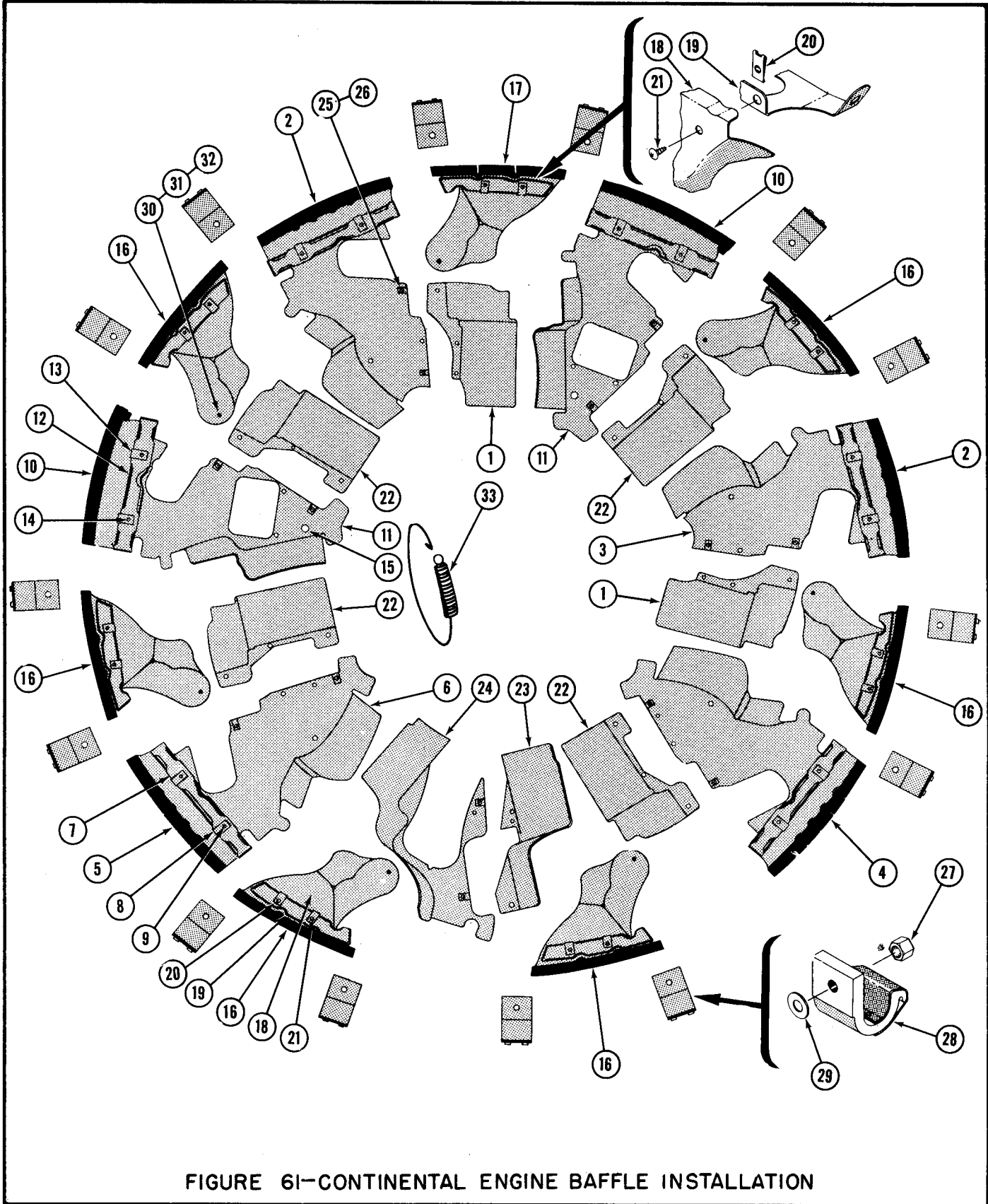


FIGURE 61-CONTINENTAL ENGINE BAFLE INSTALLATION



ILLUSTRATED PARTS CATALOG

FIGURE 61

CONTINENTAL 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 - Continental engine (see figure 58 for NHA)						Ref	
61-1	0350264							2	
-2	0350127-3							2	
-3	0350115-3							1	
-4	0350127-1							1	
-5	0350127-4							1	
-6	0350115							1	
-7	0350119							1	
-8	NAS395-18-3							2	
-9	PK76XZ-8-8							2	
-10	0350154							2	
-11	0350153							1	
-12	0350119							1	
-13	NAS395-18-3							2	
-14	PK76XZ-8-8							2	
-15	48192							1	
-16	0350146							6	
-17	0350146-3							1	
-18	0350114							1	
-19	0350137							1	
-20	NAS395-18-3							2	
-21	PK76XZ-8-8							2	
-22	0350118							4	
-23	0350139							1	
-24	0350140							1	
-25	NAS395-18-3							14	
-26	PK76XZ-8-8							14	
-27	AN365-524C							14	
-28	0352131							14	
-29	0350311							AR	
-30	AN515-10R5							7	
-31	AN960-10L							7	
-32	AN935-10L							7	
-33	S4-26							7	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

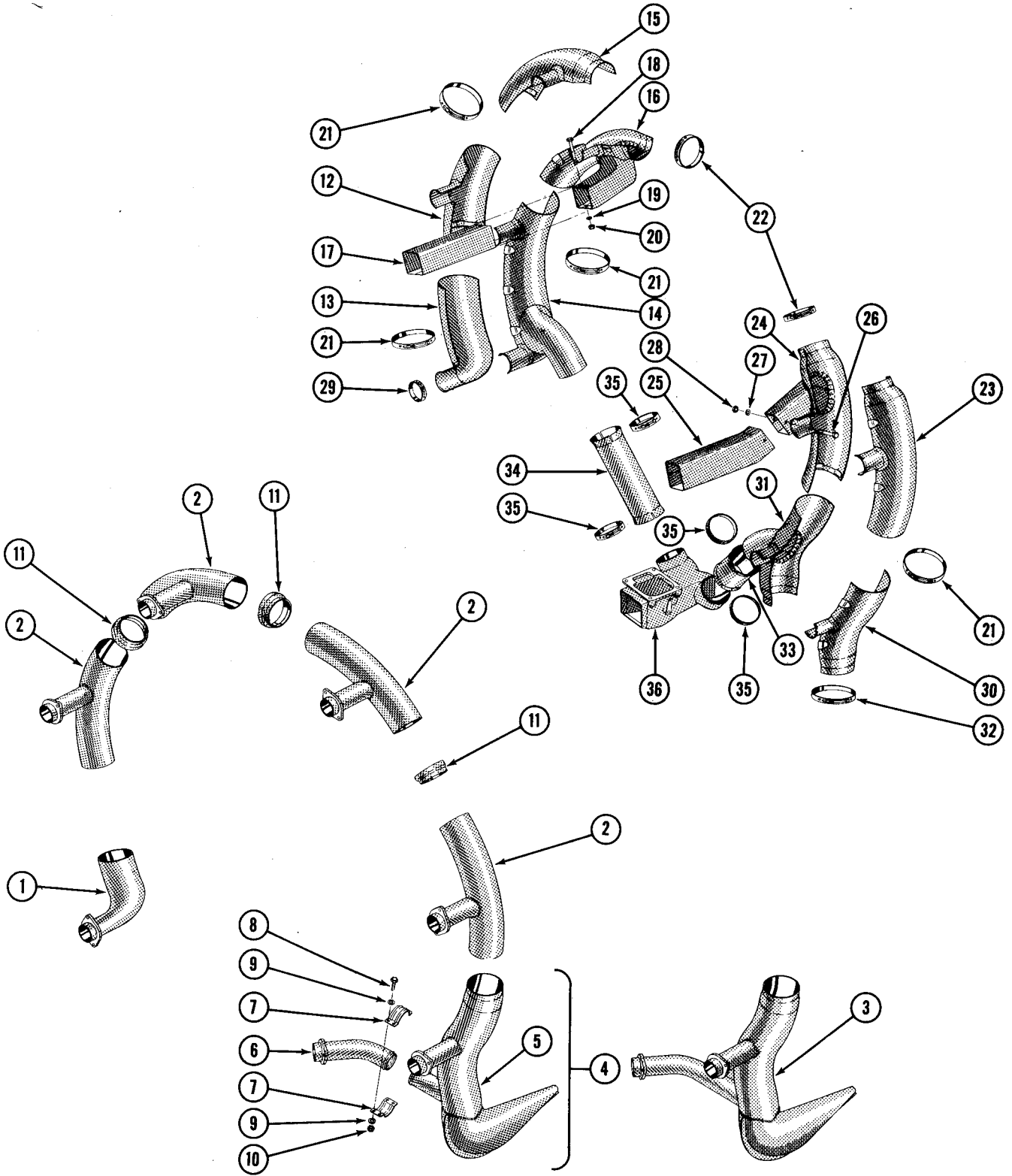


FIGURE 62—CONTINENTAL ENGINE EXHAUST STACK INSTALLATION



ILLUSTRATED PARTS CATALOG

FIGURE 62

CONTINENTAL ENGINE EXHAUST STACK INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS		
		1	2	3	4	5	6	190	195	
				Exhaust Stack Installation - Continental engine (see figure 58 for NHA)						1
	0350200-10							Stack Kit - Exhaust	1	
62-1	0350125							Segment Assembly - Exhaust stack (#4 cylinder)	1	
-2	0350144							Segment Assembly - Exhaust stack (#1, 2, 3, & 7 cylinder) (serials 7005 thru 7689)	4	
	0350184							Segment Assembly - Exhaust stack (#1, 2, 3 & 7 cylinders) (Eff. serials 7690 & on)	4	
-3	0350261							Segment Assembly - Exhaust & bayonet stack (#5, & 6 cylinder) (Eff. serials 7003 thru 7689)	1	
-4	0350314							Segment Assembly - Exhaust and bayonet stack (#5 & 6 cylinders) (Eff. serials 7690 & on)	1	
-5	0350185							Segment - Exhaust stack	1	
-6	0350185-8							Tube - Inlet	1	
-7	0350186-7							Clamp - Exhaust stack	1	
-8	AN3-5A							Bolt - (Attach clamp)	4	
-9	AN960-10							Washer - (Attach clamp)	8	
-10	AN365-1032C							Nut - (Attach clamp)	4	
-11	0350143							Sleeve - Exhaust collector (serials 7005 thru 7689)	3	
	0350200-11							Muff Kit - Hot air	1	
-12	0350220-6							Segment Assembly - Lower right outside upper	1	
-13	0350220-7							Segment Assembly - Lower right outside lower	1	
-14	0350218							Segment Assembly - Lower right inside	1	
-15	0350247							Segment Assembly - Upper right outside	1	
-16	0350246							Segment Assembly - Upper right inside	1	
-17	0350213-6							Segment - Intake upper right	1	
-18	AN3-26A							Bolt - (Attach segment)	1	
-19	AN960-10							Washer - (Attach segment)	1	
-20	AN365-1032							Nut - (Attach segment)	1	
-21	NAS398-75P							Clamp - (Tinnerman A3122-75-4)	4	
-22	NAS398-53P							Clamp - (Tinnerman A3122-53-4)	2	
-23	0350202							Segment Assembly - Upper left outside	1	
-24	0350201							Segment Assembly - Upper left inside	1	
-25	0350235-6							Segment - Intake upper left	1	
-26	AN3-26A							Bolt - (Attach segment)	1	
-27	AN960-10							Washer - (Attach segment)	1	
-28	AN365-1032							Nut - (Attach segment)	1	
-29	NAS397-36P							Clamp - (Tinnerman A3499-36-4)	5	
-30	0350242							Segment Assembly - Lower left outside	1	
-31	0350212							Segment Assembly - Lower left inside	1	
-32	NAS398-64P							Clamp - (Tinnerman A3122-64-4)	1	
-33	0350135-6							Duct - Carburetor heat left	1	
-34	0350135-7							Duct - Carburetor heat right	1	
-35	NAS398-50P							Clamp - (Tinnerman A3122-30-4)	4	
-36	0350106							Valve Assembly - Carburetor hot & cold air (see figure 59 for breakdown)	Ref	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

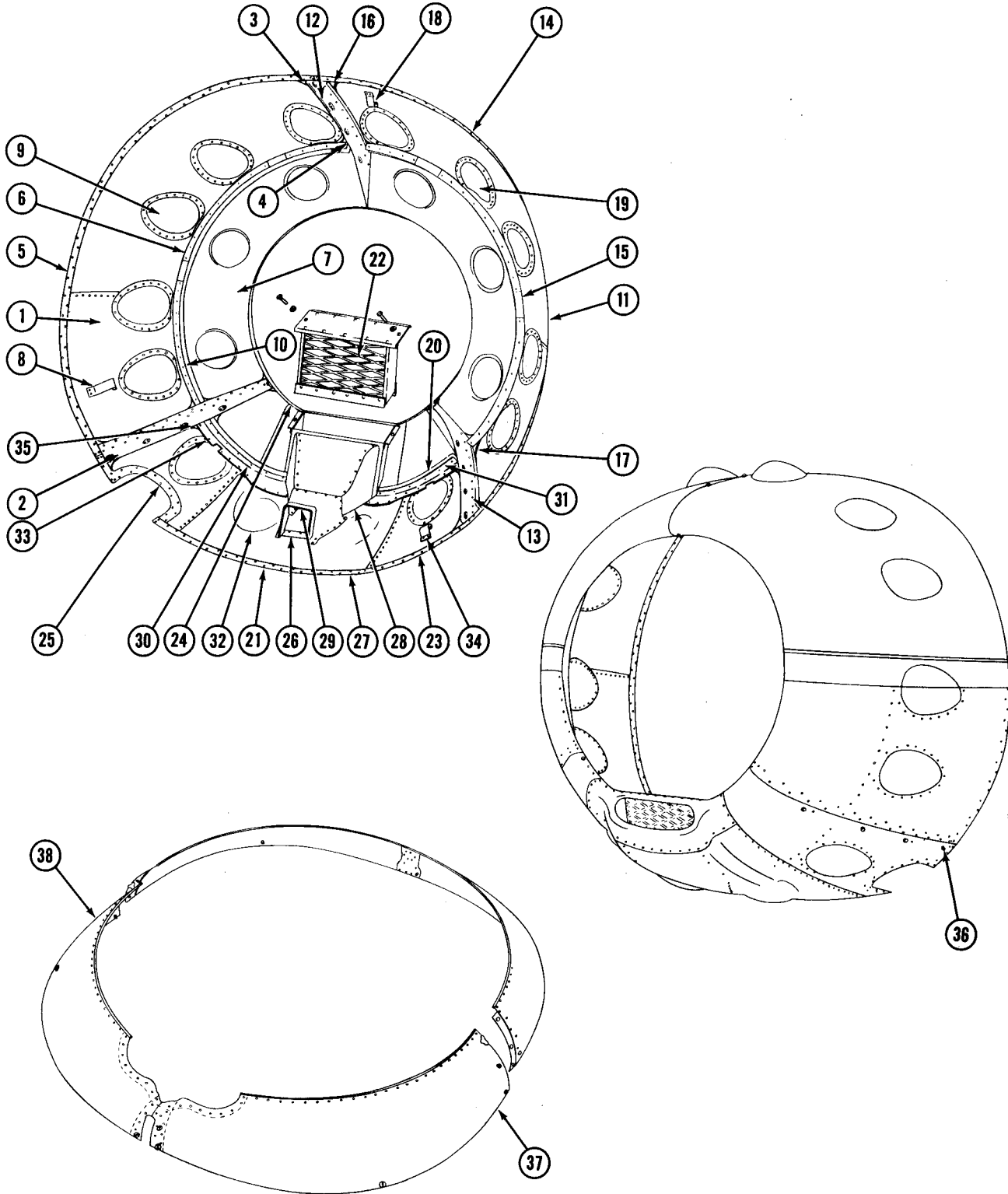


FIGURE 63—CONTINENTAL ENGINE COWL INSTALLATION





## ILLUSTRATED PARTS CATALOG

FIGURE 63

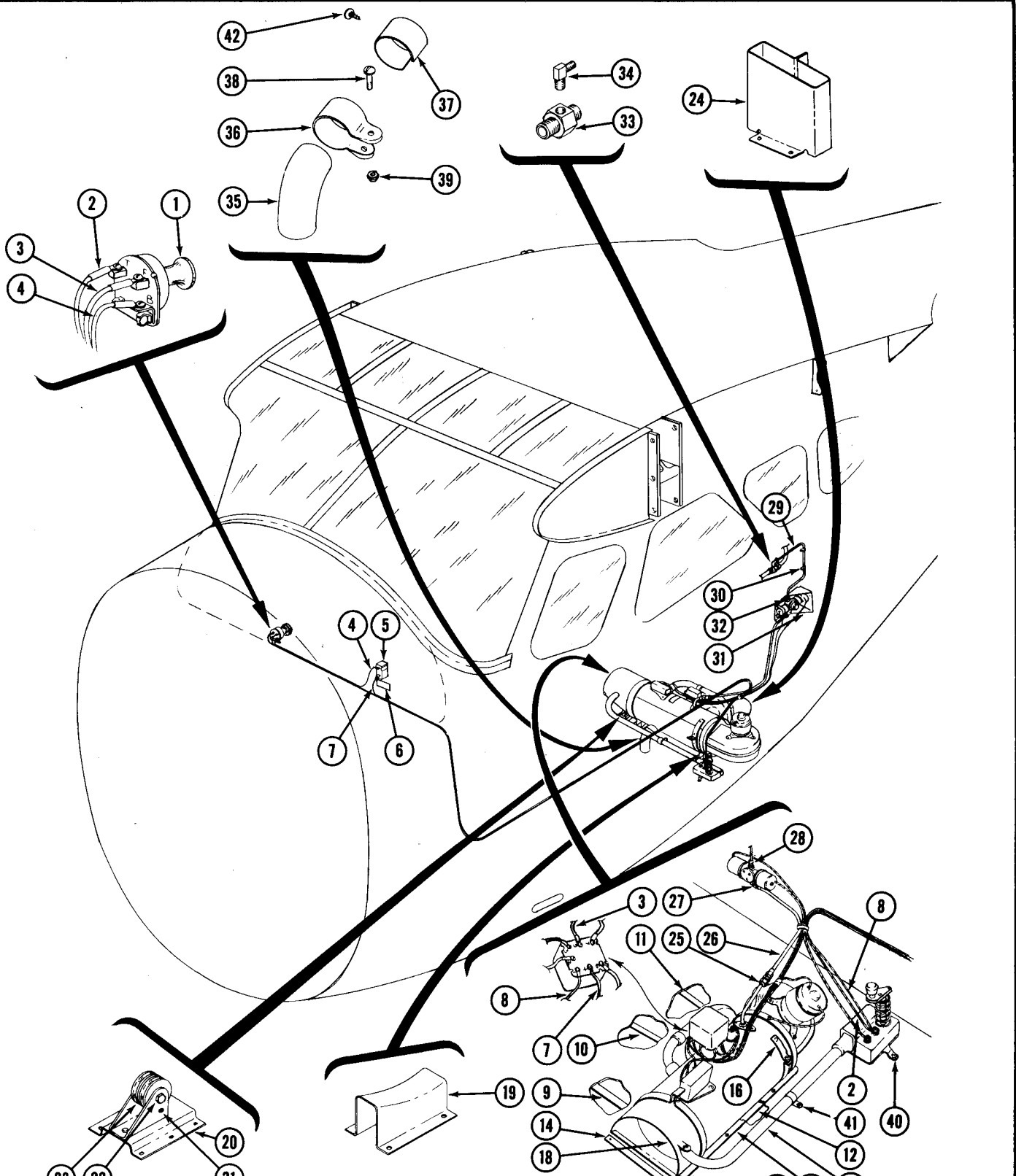
## CONTINENTAL ENGINE COWL INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		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



SERIALS 7003 THRU 7513  
 FIGURE 64-CABIN HEATER INSTALLATION



ILLUSTRATED PARTS CATALOG

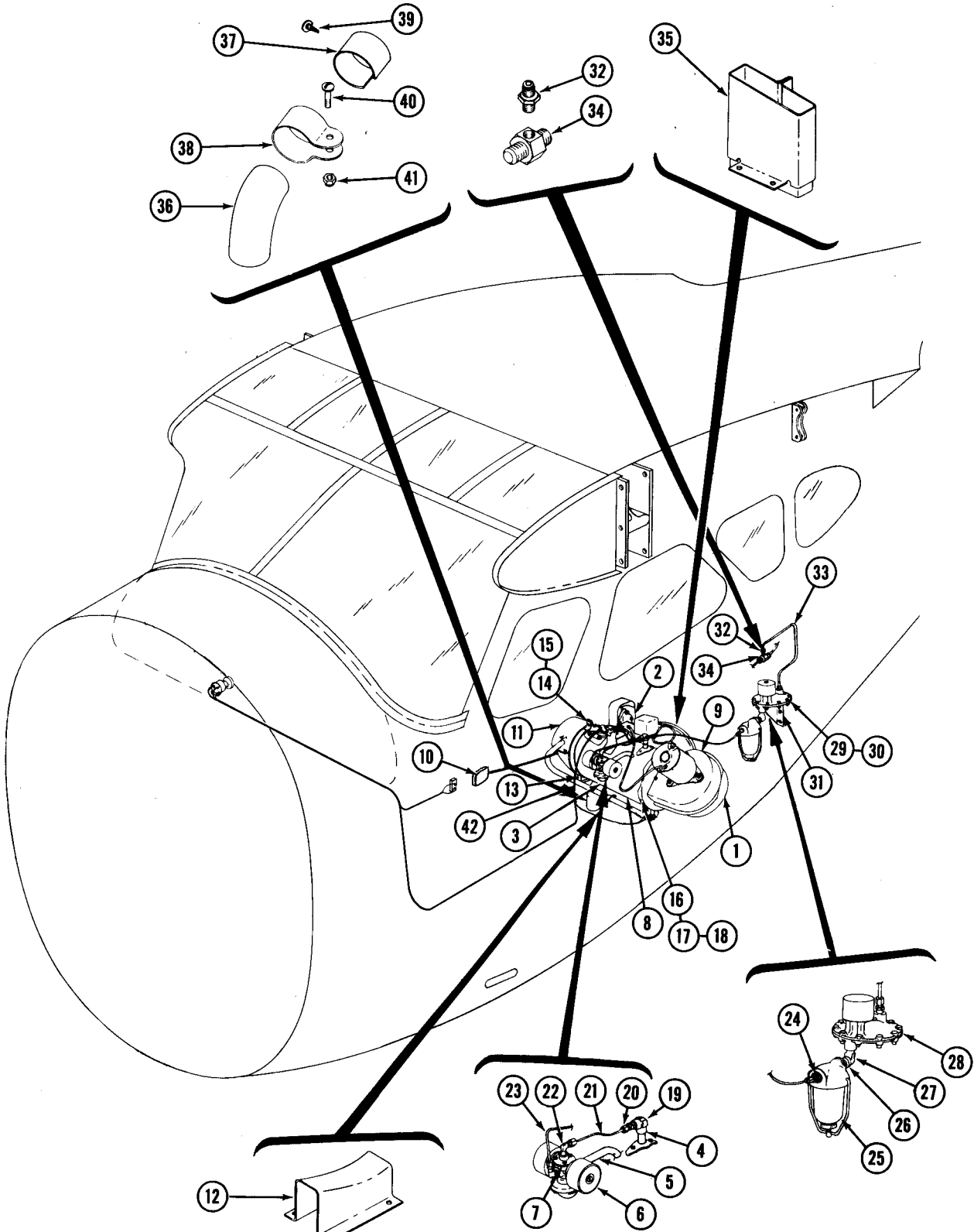
FIGURE 64

CABIN HEATER INSTALLATION (SERIALS 7003 THRU 7513)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		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



ILLUSTRATED PARTS CATALOG

FIGURE 65

CABIN HEATER INSTALLATION (SERIALS 7514 & ON)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	0311752-1	Heater Installation (Eff. serials 7514 & on)						1	1
65-1	0311752-28	Heater Assembly						1	1
-2	0311752-31	Guard Assembly						1	1
-3	0511231-17	Heater Assembly						1	1
-4	0511231-4	Standpipe						1	1
-5	0511231-5	Pipe - Drip						1	1
-6	0511231-16	Valve Assembly - Fuel control						1	1
-7	0511231-3	Plate - Valve adapter						1	1
-8	979-B-1	Heater - Stewart Warner						1	1
-9	0311779-4	Blower Assembly - Heater (Stewart Warner 485201)						1	1
-10	0311779-24	Thermostat - (Stewart Warner)933-A						1	1
	PK76XZ-6-4	Screw - (Attach thermostat)						3	3
	NAS446-2	Nut - (Attach thermostat)						3	3
-11	0311752-12	Deflector Assembly - Air outlet						1	1
-12	0311752-9	Bracket - Heater support left						1	1
-13	0311752-8	Bracket - Heater support right (Stewart Warner 475229)						1	1
-14	0311779-22	Belting - (Stewart Warner Corp) (Stewart Warner 475232)						1	1
-15	0311779-23	Strap Assembly						1	1
-16	0311752-11	Strap Assembly - Heater mounting left						1	1
-17	AN526-1032-8	Screw - (Attach strap)						1	1
-18	AN365-1032	Nut - (Attach strap)						1	1
-19	AN916-1D	Elbow						1	1
-20	AN816-2D	Nipple						1	1
-21	0500106-78	Line - Fuel						1	1
-22	AN822-2D	Elbow						2	2
-23	0300106-73	Line - Fuel						1	1
-24	AN816-2B	Nipple						1	1
-25	0311752-30	Filter - Fuel						1	1
-26	AN911-1	Nipple						1	1
-27	AN914-1	Elbow						1	1
-28	0311779-17	Valve Assembly - Safety (Stewart Warner G485207)						1	1
-29	AN526-1032R10	Screw - (Attach valves)						3	3
-30	0311779-26	Washer - Lock (Stewart Warner 3-481074)						3	3
-31	0311752-29	Bracket - Safety valve						1	1
-32	AN816-2D	Nipple						2	2
-33	0300106-74	Line - Fuel						1	1
-34	0311752-3	Fitting - Fuel line						1	1
-35	0311752-20	Duct - Air inlet heater						1	1
-36	0311752-5	Tube - Heater exhaust						1	1
-37	0311752-10	Tape - Asbestos (Johns-Manville #1091)						1	1
-38	AN741-D13	Clamp						1	1
-39	PK77XZ-6-4	Screw - (Attach clamp)						1	1
-40	AN526-1032R10	Screw - (Attach clamp)						1	1
-41	AN365-1032	Nut - (Attach clamp)						1	1
-42	0311752-7	Duct - Heater to thermostat						1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

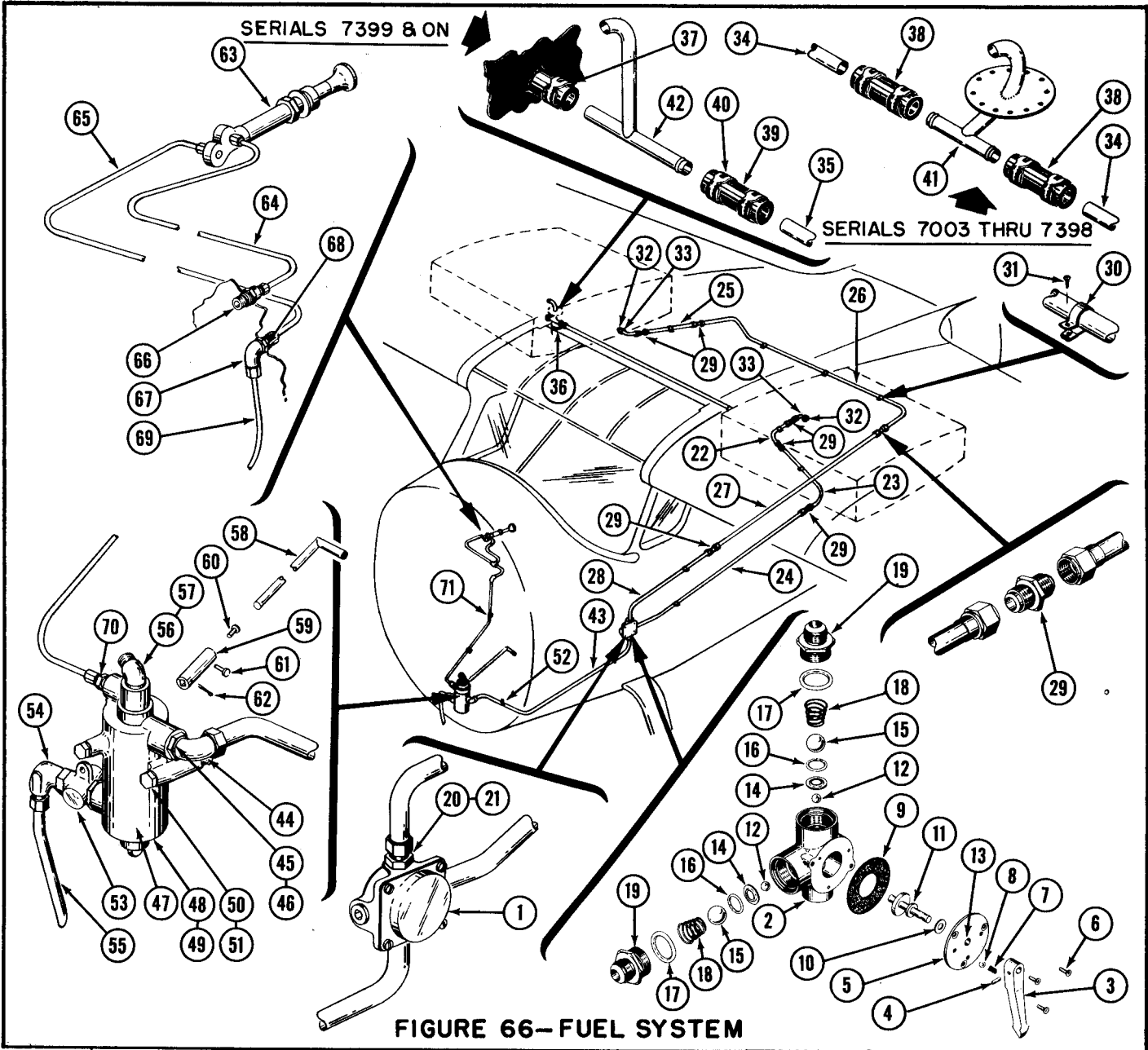


FIGURE 66—FUEL SYSTEM

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		System Installation - Fuel (0300204 Ref)	1	1
66-1	0311025	Valve - Fuel selector (Thompson) (Eff. serials 7003 thru 7706)	1	1
	0311070	Valve - Fuel selector (Eff. serials 7707 thru 16083)	1	1
	0311070-1	Valve - Fuel selector (serials 16084 & on)	1	1
-2	0311071	Base - Fuel valve	1	1
-3	0311078	Handle - Fuel valve	1	1
-4	52-028-125-0500	Roll Pin - Esna (attach handle)	1	1
-5	0311073	Plate - Fuel valve	1	1
-6	AN505-632R5	Screw - (Attach plate)	3	3
-7	0616052	Spring - Handle lock	1	1
-8	16007-7	Ball - Handle lock	1	1
-9	0311076	Gasket - Valve plate	1	1
-10	AN960C416L	Washer	1	1
-11	0311072	Cam - Fuel valve	1	1
-12	16007-11	Ball - Fuel valve	2	2
-13	AF934-5	"O" Ring	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

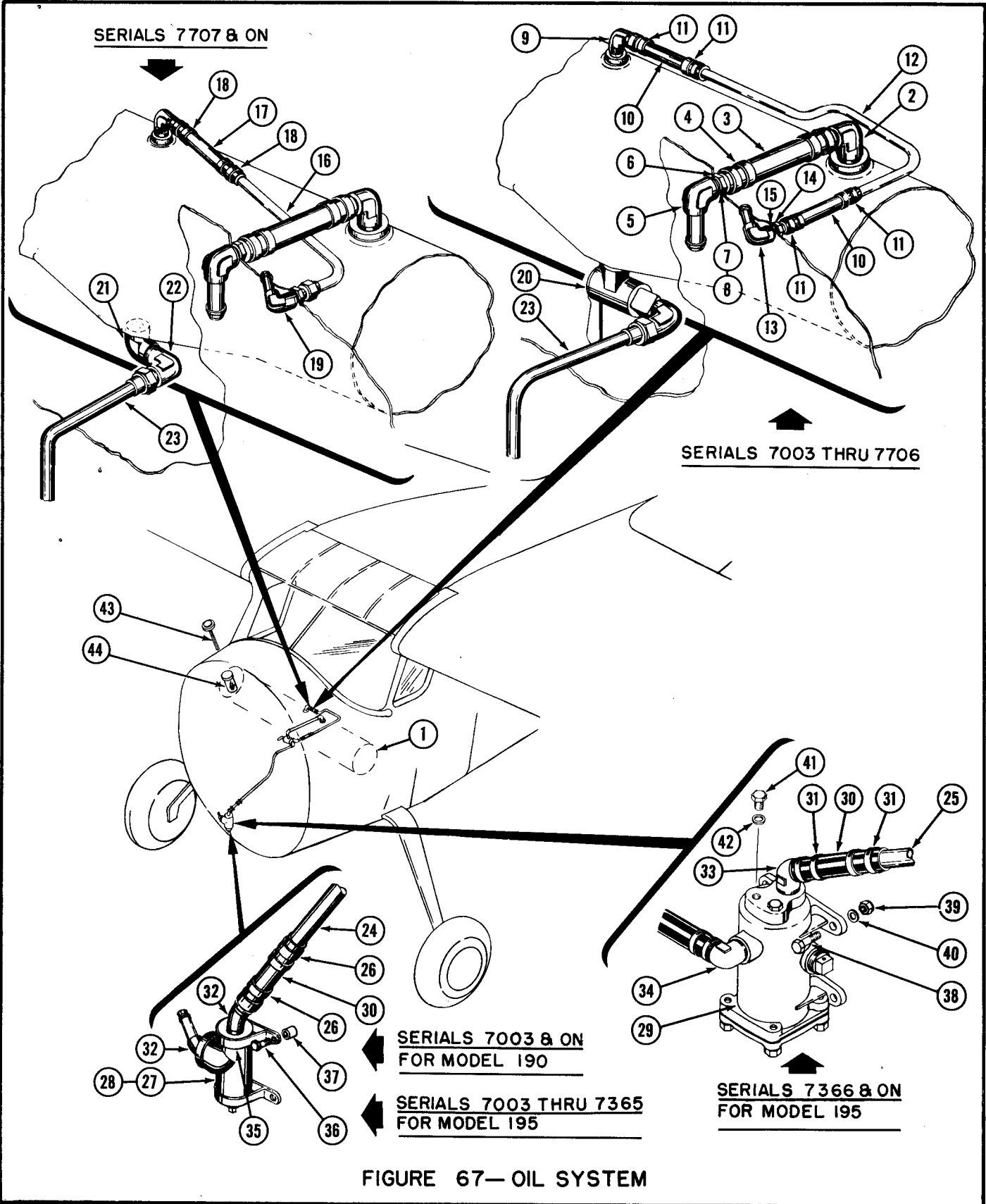
FIGURE 66

## FUEL SYSTEM INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
66-14	0311077						Retainer - "O" ring	2	2
-15	16007-20						Ball - Fuel valve	2	2
-16	AF934-10						"O" Ring	2	2
-17	AF934-17						"O" Ring	2	2
-18	0311079						Spring - Fuel valve	2	2
-19	0311075						Retainer - Fuel valve	2	2
	0311075-1						Retainer - Fuel valve (-1 assembly only)	2	2
	0513124-1						Housing - (-1 assembly only)	1	1
-20	AN816-8D						Union - Fuel valve (Eff. serials 7003 thru 7706)	3	3
-21	AN816-8D						Union - Fuel valve (Eff. serials 7707 & on)	1	1
-22	0300106-6						Line - Fuel tank to selector valve	1	1
-23	0300106-7						Line - Fuel tank to selector valve	1	1
-24	0300106-8						Line - Fuel tank to selector valve	1	1
-25	0300106-9						Line - Fuel tank to selector valve	1	1
-26	0300106-10						Line - Fuel tank to selector valve	1	1
-27	0300106-11						Line - Fuel tank to selector valve	1	1
-28	0300106-12						Line - Fuel tank to selector valve	1	1
-29	AN815-8D						Union - (Connect fuel lines)	7	7
-30	NAS434-8D						Clamp - Fuel line support	8	8
-31	PK76XZ-8-8						Screw - (Attach clamp)	8	8
	0311332						Clip - Fuel line support	3	3
-32	0322542						Strainer Assembly - Fuel tank	2	2
-33	NAS397-16						Clamp - (Attach strainer) (Tinnerman A3122-16-59)	2	2
-34	0300106-14						Line - Fuel vent (Eff. serials 7003 thru 7398)	2	2
-35	0300106-69						Line - Fuel vent - (Eff. serials 7399 & on & all spares)	1	1
	NAS434-8D						Clamp - Fuel line to tank (Eff. serials 7003 thru 7398)	1	1
-36	AN749-1-6						Jumper - Fuel line to rib (Eff. serials 7003 thru 7398)	1	1
	NAS446-2						Nut - (Attach jumper) (Eff. serials 7003 thru 7398)	1	1
	PK76XZ-8-8						Screw - (Attach jumper) (Eff. serials 7003 thru 7398)	1	1
	PK76XZ-6-6						Screw - (Attach jumper) (Eff. serials 7003 thru 7398)	1	1
-37	NAS397-16						Clamp - (Attach line to tank) (Tinnerman A3122-16-59)	4	4
-38	AN884-8-10						Hose - (Attach line to vent) (Eff. serials 7003 thru 7398)	2	2
-39	AN884-8-10						Hose - (Attach line to vent) (Eff. serials 7399 & on)	1	1
-40	NAS397-14						Clamp - (Attach hose) (Tinnerman A3122-14-59) (Eff. serials 7399 & on)	2	2
-41	0322545						Vent Assembly - Fuel (Eff. serials 7003 thru 7398)	1	1
-42	0322552-1						Vent Assembly - Fuel (Eff. serials 7399 thru 7631)	1	1
	0322552						Vent Assembly - Fuel (Eff. serials 7632 thru 16142)	1	1
	0322552-5						Vent Assembly - Fuel (Eff. serials 16143 & on)	1	1
-43	0300106-13						Line - Fuel selector valve to fuel strainer	1	1
-44	AN833-8D						Elbow - (Attach line to fuel strainer)	1	1
-45	AB924-8D						Nut - Firewall elbow	1	1
-46	AN902-8						Washer - Firewall elbow	1	1
	0311525						Strainer - Fuel	1	1
-47	0311519						Castings - Fuel strainer	1	1
-48	0311524						Screen Assembly - Fuel strainer	1	1
-49	AN900-20						Gasket - Fuel strainer	1	1
-50	AN4-27A						Bolt - (Attach strainer)	1	1
-51	AN365-428						Nut - (Attach strainer)	1	1
-52	NAS435-D8						Clamp - (Attach fuel line to firewall) (Tinnerman A3047A-8)	1	1
	PK76XZ-8-6						Screw - (Attach clamp)	1	1
-53	0311052						Valve - Fuel drain	1	1
-54	AN822-6D						Elbow - (Valve to drain line)	1	1
	0300106-15						Line - Fuel drain (Eff. serials 7003 thru 7274)	1	1
-55	0300106-52						Line - Fuel drain (Eff. serials 7275 & on)	1	1
-56	AN823-8D						Elbow - Fuel strainer top (195 only)		1
-57	AN822-8D						Elbow - Fuel strainer top (190 only)	1	
-58	0311449						Handle - Fuel shut off valve	1	1
-59	0311450						Collar - Fuel drain valve handle	1	1
-60	AN526-832-R45						Screw - (Attach collar)	1	1
-61	AN392-17						Pin - (Attach collar)	1	1
-62	AN380-2-3						Pin - Cotter	2	2
-63	0311538-1						Primer - Engine fuel (see figure 42)	Ref	Ref
-64	0300106-18						Line - Primer to firewall	1	1
-65	0300106-17						Line - Primer to firewall	1	1
-66	AN832-2D						Union - Firewall line to primer	1	1
-67	AN833-2D						Elbow - Firewall primer line	1	1
-68	AN924-2D						Nut - Firewall elbow & union	2	2
	AN4-4A						Bolt - (Plug fuel pressure hole) (Eff. serials 7273 & on) (190 only)	1	
	AN365-428						Nut - (Eff. serials 7273 & on) (190 only)	1	
	AN960-416L						Washer - (Eff. serials 7273 & on) (190 only)	1	
-69	0300106-16						Line - Primer (firewall to strainer)	1	1
-70	AN816-2D						Nipple - Primer line to strainer	1	1
-71	755-2-2-6						Clamp - (Attach primer line to firewall)	2	2
	NAS446-4						Nut - (Attach clamp) (Tinnerman A1778-8Z-3)	2	2
	PK76XZ-8-8						Screw - (Attach clamp)	2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE







## ILLUSTRATED PARTS CATALOG

FIGURE 67

## OIL SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		System Installation - Oil (0300204 Ref)	1	1
67-1	0311240	Tank Assembly - Oil (see figure 21)	Ref	Ref
-2	AN842-12D	Elbow - Oil tank top	1	1
-3	AN884-12-17	Hose - Oil tank to firewall	1	1
-4	NAS397-18	Clamp - (Tinnerman A3122-18-59)	4	4
-5	AN848-12D	Elbow - Firewall	1	1
-6	AN924-12D	Nut - Firewall elbow	1	1
-7	AN960-A1716L	Washer - Firewall elbow	2	2
-8	AN960-A1716	Washer - Firewall elbow	1	1
-9	AN842-6D	Elbow - Oil tank top	1	1
-10	AN884-6-14	Hose - Oil tank drain (Eff. serials 7003 thru 7706)	2	2
-11	NAS397-12	Clamp - (Tinnerman A3122-12-59) (Eff. serials 7003 thru 7706)	8	8
-12	0300106-20	Line - Oil tank vent (Eff. serials 7003 thru 7706)	1	1
-13	AN848-6D	Elbow - Firewall (Eff. serials 7003 thru 7706)	1	1
-14	AN924-6D	Nut - Firewall elbow	1	1
-15	AN960-A916L	Washer - Firewall elbow	2	2
-16	0300106-81	Line - Oil tank vent (Eff. serials 7707 & on)	1	1
-17	AN884-6-14	Hose - Oil tank drain (Eff. serials 7707 & on)	1	1
-18	NAS397-12	Clamp - (Tinnerman A3122-12-59) (Eff. serials 7707 & on)	4	4
-19	AN838-60	Elbow - Firewall (Eff. serials 7707 & on)	1	1
-20	0311486	Valve - Oil shut off (Eff. serials 7003 thru 7640)	1	1
-21	AN916-6D	Elbow - Oil tank bottom (Eff. serials 7641 & on)	1	1
-22	AN822-12B	Elbow - Oil tank bottom (Eff. serials 7641 & on)	1	1
-23	0300106-53	Line Assembly - Oil tank to tee	1	
-24	0300106-53	Line - Oil tank tee (195 only) (Eff. serials 7003 thru 7365)		1
-25	0300106-56	Line - Oil tank to tee (195 only) (Eff. serials 7366 & on)		1
-26	NAS397-18	Clamp - (Tinnerman A3122-18-59)	4	4
-27	0300204-4	Tube - Vinylite (Approx. 16" long)	1	1
-28	AN917-6D	Tee - Oil strainer (190 only)	1	
-28	AN917-6D	Tee - Oil strainer (195 only) (Eff. serials 7003 thru 7365)		1
-29	90072	Strainer - Oil (Jacobs) (195 only) (Eff. serials 7365 & on)		1
-30	AN884-12-17	Hose - Oil strainer	1	1
-31	NAS397-18	Clamp - (Attach hose) (Tinnerman A3122-18-59)	4	4
-32	AN844-12D	Elbow - Oil tee (190 only)	2	
-33	AN884-12C	Elbow - Oil strainer top (195 only) (Eff. serials 7366 & on)		1
-34	AN882-12D	Elbow - Oil strainer side (195 only) (Eff. serials 7366 & on)		1
-35	AN742-22	Clamp - (Attach oil tee) (190 only)	2	
	AN3-10A	Bolt - (Attach clamp) (190 only) (Eff. serials 7003 thru 7270)	3	
	AN365-1032	Nut - (Attach clamp) (190 only)	3	
	NAS43-3-28	Spacer - (190 only) (Eff. serials 7003 thru 7270)	3	
	AN960-10	Washer - (190 only) (Eff. serials 7003 thru 7270)	6	
-36	AN3-7A	Bolt - (Attach clamp) (190 only) (Eff. serials 7271 & on)	3	
-37	NAS43-3-15	Spacer - (190 only) (Eff. serials 7271 & on)	3	
-38	AN4-10A	Bolt - (Attach strainer) (195 only) (Eff. serials 7366 & on)		4
-39	AN365-428	Nut - (Attach strainer) (195 only) (Eff. serials 7366 & on)		4
-40	AN960-416	Washer - (Attach strainer) (195 only) (Eff. serials 7366 & on)		4
-41	2265	Plug - Oil drain (195 only) (Eff. serials 7366 & on)		2
-42	AN900-10	Gasket - Drain plug (195 only) (Eff. serials 7366 & on)		2
-43	0311360	Dipstick Assembly	1	1
-44	0311240-17	Filler Neck	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

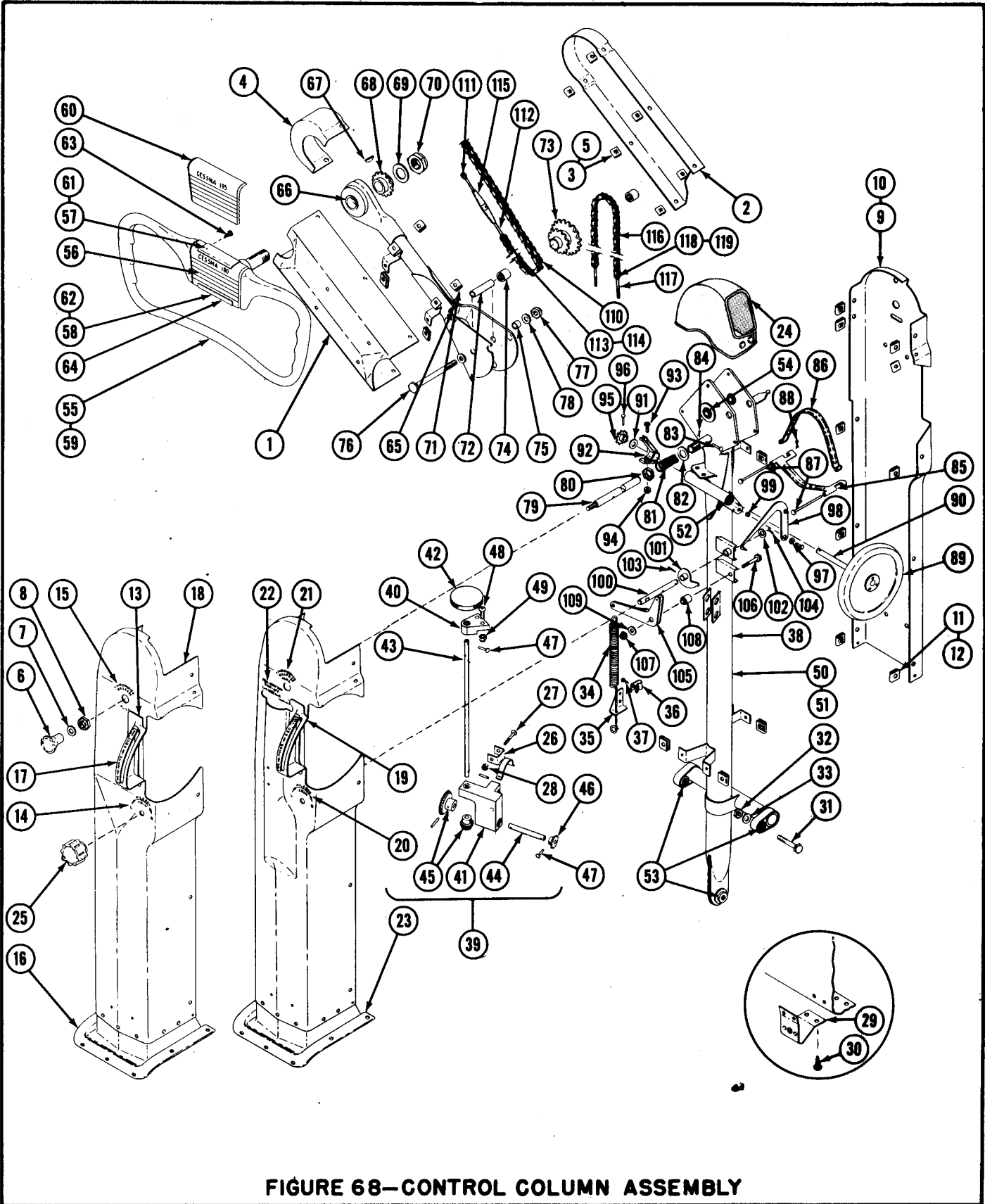


FIGURE 68—CONTROL COLUMN ASSEMBLY



ILLUSTRATED PARTS CATALOG

FIGURE 68

CONTROL COLUMN INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		Control Column Installation	1	1
68-1	0310377	Cover - Control column	1	1
-2	0310423	Cover Assembly - Control arm	1	1
-3	NAS395-14-3	Nut - (Tinnerman A1274-8Z-3)	6	6
-4	0310139	Cap - Control arm cover	1	1
-5	PK76XZ-8-6	Screw - (Attach cover)	6	6
-6	0411089	Knob - Throwover control release	1	1
-7	AN960-816L	Washer	1	1
-8	AN364-820	Nut	1	1
-9	0310390	Cover Assembly - Control column (Eff. serials 7003 thru 7393)	1	1
-10	0310439	* Cover Assembly - Control column (Eff. serials 7394 & on)	1	1
-11	NAS395-14-3	Nut - (Tinnerman A1274-8Z-3)	10	10
-12	PK76XZ-6-4	Screw - (Attach cover)	10	10
	0310366	Cover Assembly - Control column (Eff. serials 7003 thru 7393)	1	1
-13	0310127	Cover - Tab control	1	1
-14	0310350	Placard - Aileron trim	1	1
-15	0310388	Placard - Throwover arm	1	1
-16	0310314	Boot Assembly - Control column	1	1
-17	0310353	Placard - Tab control	1	1
	0310434	* Cover Assembly - Control column (Eff. serials 7394 & on)	1	1
-18	0310433	Cover - Control column	1	1
-19	0310127	Cover - Tab control	1	1
-20	0310350	Placard - Aileron trim	1	1
-21	0310445	Placard - Throwover release	1	1
-22	0310440	Placard - Rudder trim	1	1
-23	0310441	Boot Assembly - Control column	1	1
-24	0311792	Cover - Control column top	1	1
-25	#4101	Knob - Aileron trim	1	1
-26	0310431	* Guard - Rudder trim chain (Eff. serials 7394 & on)	1	1
-27	AN526-832R16	* Screw - (Attach guard) (Eff. serials 7394 & on)	1	1
-28	AN365-832	* Nut - (Attach guard) (Eff. serials 7394 & on)	1	1
-29	0310415	Bracket Assembly - Control column catch	1	1
-30	PK76XZ-8-6	Screw - (Attach bracket)	2	2
-31	AN4-11A	Bolt - (Attach control column)	2	2
-32	AN365-428	Nut - (Attach control column)	2	2
-33	AN960-416	Washer - (Attach control column)	2	2
-34	0310340	Spring - Aileron trim	1	1
-35	0310348	Angle - Spring attachment	1	1
-36	NAS343-D5	Clamp - (Tinnerman A2981-5-3)	2	2
-37	PK76XZ-8-6	Screw - (Attach clamp)	2	2
-38	0310359	Column Assembly - Control (190) (Eff. serials 7003 thru 7393)	1	
	0310359-3	Column Assembly - Control (195) (Eff. serials 7003 thru 7393)		1
	0310359-4	Column Assembly - Control (190) (Eff. serials 7394 & on)	1	
	0310359-6	Column Assembly - Control (195) (Eff. serials 7394 & on)		1
-39	0310426	* Control Assembly - Rudder trim	1	1
-40	0310428	Housing - Rudder trim control	1	1
-41	0310427	Support - Gear	1	1
-42	0310429	Knob - Rudder trim control	1	1
-43	0310425-1	Shaft - Rudder trim control	1	1
-44	0310425-2	Shaft - Rudder trim control	1	1
-45	0310424	Gear Set - Rudder trim control	1	1
-46	0432134-1	Sprocket - Chain drive	1	1
-47	AN420-3-10P	Rivet - (Attach knob & sprocket)	2	2
-48	AN526-832-R10	Screw - (Attach trim control)	2	2
-49	AN365-832	Nut - (Attach trim control)	2	2
-50	0310444	Tube Assembly - Control	1	1
-51	0310358	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	PK76XZ-4-4	Screw - (Attach channel)	2	2
-64	PK76XZ-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	
		1	2	3	4	5	6	190	195
68-67	AN280-304							1	1
-68	0310364							1	1
-69	0310359-5							1	1
-69	0310359-5							1	1
-70	AN364-1216							1	1
-71	NAS395-14-3							10	10
-72	0310367							1	1
-73	0310372							1	1
-74	B-66-X							2	2
-75	NAS43-5-16							1	1
-76	AN5-26A							1	1
-77	AN364-524							1	1
-78	AN960-516L							2	2
-79	0310382							1	1
-80	AC365-820							1	1
-81	0310363							1	1
-82	AN960-816L							1	1
-83	AN392-29							1	1
-84	AN380-2-2							1	1
-85	0310379							1	1
-86	0310380							1	1
-87	AN392-57							2	2
-88	AN380-2-2							2	2
-89	0310412							1	1
-90	0310412-2							1	1
-91	AN960-416L							1	1
-92	0310126							1	1
-93	AN526-1032R7							1	1
-94	AN365-1032							1	1
-95	0432134-1							1	1
-96	AN420-3-10P							1	1
-97	AN960-10L							1	1
-98	0310124							1	1
-99	0310137							1	1
-100	0310345							1	1
-101	0310344							1	1
-102	AN960-416L							1	1
-103	1/16 x 3/8							1	1
-104	AN380-2-2							1	1
-105	0310343							1	1
-106	AN3-7A							1	1
-107	AN365-1032							1	1
-108	0310346							1	1
-109	AN960-10L							1	1
	0310150-3							1	1
-110	0310153-1							1	1
-111	NAS288-35LH							1	1
-112	NAS288-35RH							1	1
-113	AN392-13							2	2
-114	AN380-2-2							2	2
-115	AN155-32S							1	1
	0310151							1	1
-116	0310149-1							1	1
-117	NAS288-35RH							2	2
-118	AN392-13							2	2
-119	AN380-2-1							2	2

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

## ILLUSTRATED PARTS CATALOG

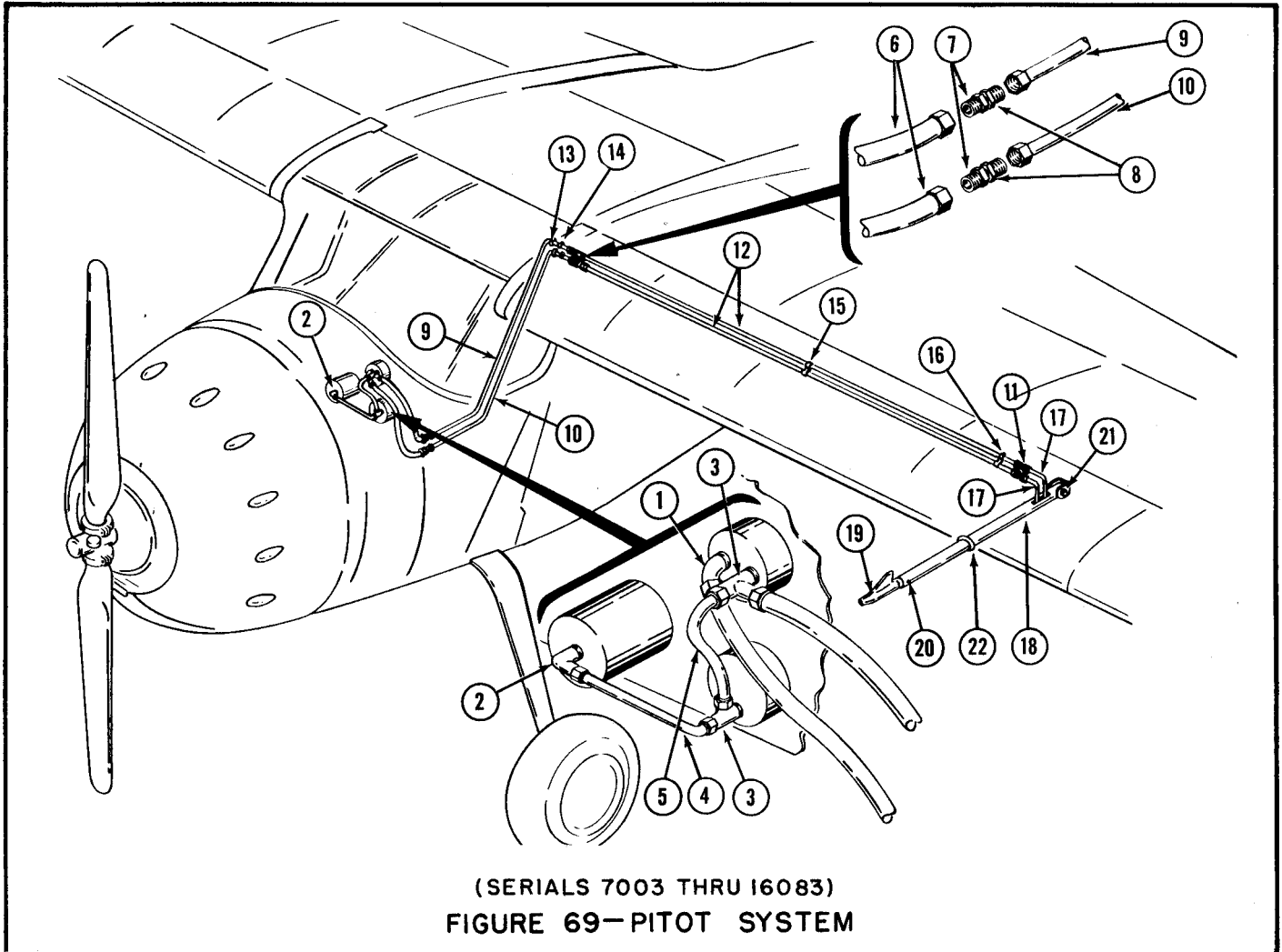


FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
		System Installation - Pitot (Cessna 0300101)	1	1
69-1	AN823-4D	Elbow - Airspeed indicator	1	1
-2	AN816-4D	Nipple - Altimeter	2	2
-3	AN826-4D	Tee - Airspeed indicator	2	2
-4	0300106-23	Tube - Altimeter to vertical speed	1	1
-5	0300106-22	Tube - Airspeed to hose	1	1
-6	AN6260-4-20	Hose Assembly + Gage to bulkhead fitting	2	2
-7	AN832-4D	Union - Bulkhead (Eff. serials 7003 thru 7349)	2	2
-8	AN924-4D	Nut - Bulkhead union (Eff. serials 7003 thru 7349)	2	2
-9	0300106-24	Line - Static (bulkhead to wing root) (Eff. serials 7003 thru 7349)	1	1
-10	0300106-25	Line - Pitot (bulkhead to wing root) (Eff. serials 7003 thru 7349)	1	1
	AN815-4D	Union - Connect hose to line (Eff. serials 7350 & on)	2	2
	0300106-70	Line - Static (bulkhead to wing root) (Eff. serials 7350 & on)	1	1
	0300106-71	Line - Pitot (bulkhead to wing root) (Eff. serials 7350 & on)	1	1
-11	AN815-4D	Union - Wing root	4	4
-12	0300106-26	Line - Wing root to pitot mast	2	2
-13	A931-4S12	Grommet - Wing root	2	2
-14	AN742-D4	Clamp - (Tinnerman A2980A-4)	2	2
-15	NAS434-D4	Clamp - (Tinnerman A2981A-4)	2	2
-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

ILLUSTRATED PARTS CATALOG

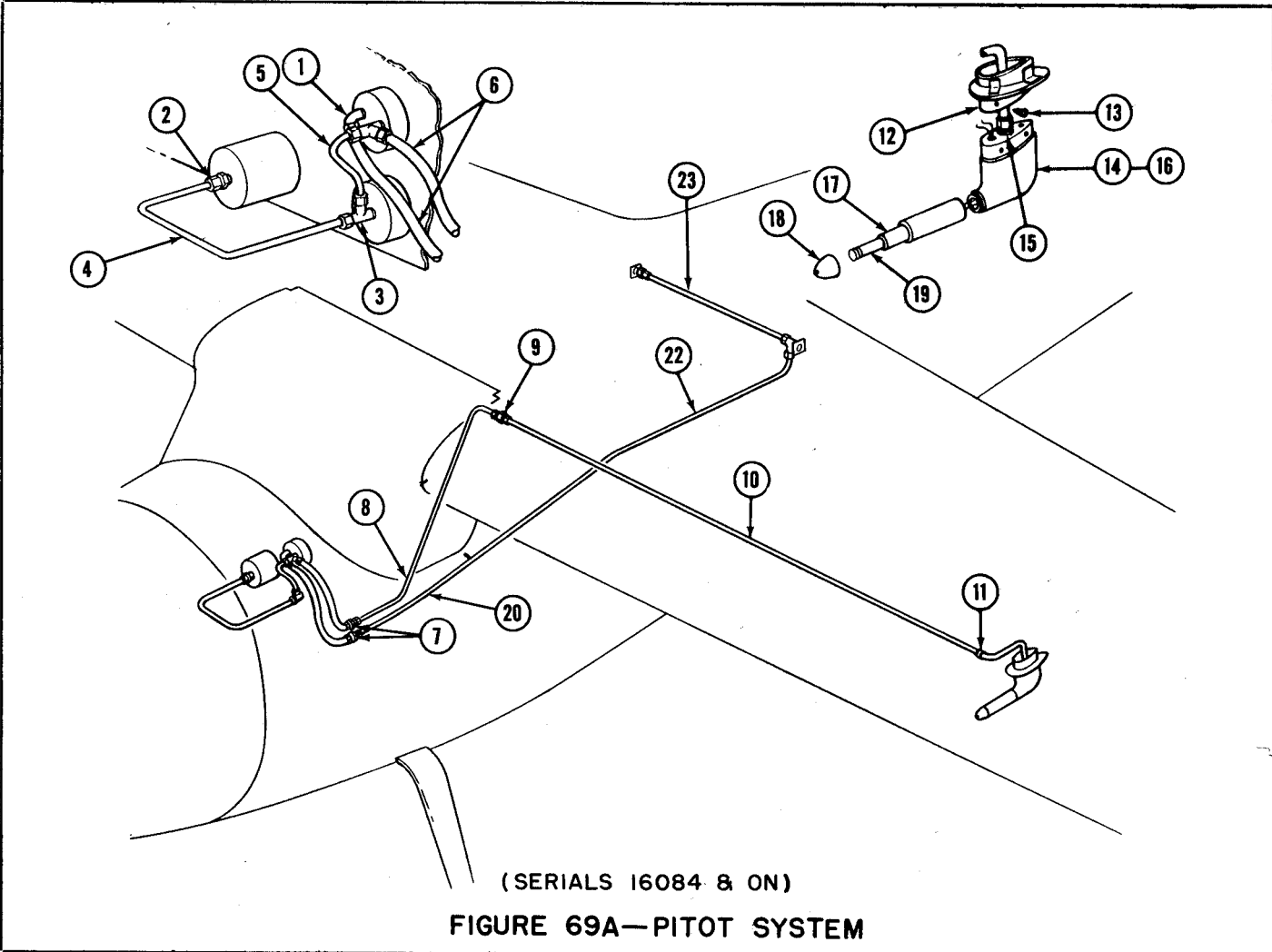


FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS									
			1	2	3	4	5	6	190	195		
		System Installation Pitot (Cessna 0300112)										
69A-1	AN823-4D	Elbow - Airspeed indicator										1
-2	AN816-4D	Nipple - Altimeter										1
-3	AN826-4D	Tee										2
-4	0300106-23	Tube - Altimeter to vertical speed										3
-5	0300106-22	Tube - Airspeed to hose										1
-6	AN6260-4-20	Hose Assembly - Gauge to bulkhead fitting										1
-7	AN815-4D	Union - Bulkhead										2
-8	0300106-71	Line - Pressure bulkhead to wing root										1
-9	AN815-4D	Union - Wing root										1
-10	0300106-156	Tube - Wing root to pitot mast										1
	AN931-4S12	Grommet - Wing root										1
-11	NAS434-D4	Clamp - (Tinnerman A2981A-4)										1
	PK75XZ-8-8	Screw - (Attach clamp)										1
-12	0721101	Connector Assembly - Pitot tube										1
-13	AN507-640R4	Screw - (Attach pitot tube)										4
-14	0721105-2	Pitot tube Assembly										1
-15	AN816-4-40	Nipple										2
-16	0721105-1	Pitot Tube Assembly - (Less heater & nose fitting)										1
-17	0721105-5	Heater Assembly										1
-18	0721105-4	Nose Fitting										1
-19	0721105-8	Stem - Pitot tube										1
-20	0300106-91	Line										1
-21	0300106-92	Line										1
	AN815-4D	Union										3
-22	0300106-87	Line										1
-23	0300106-93	Line										1



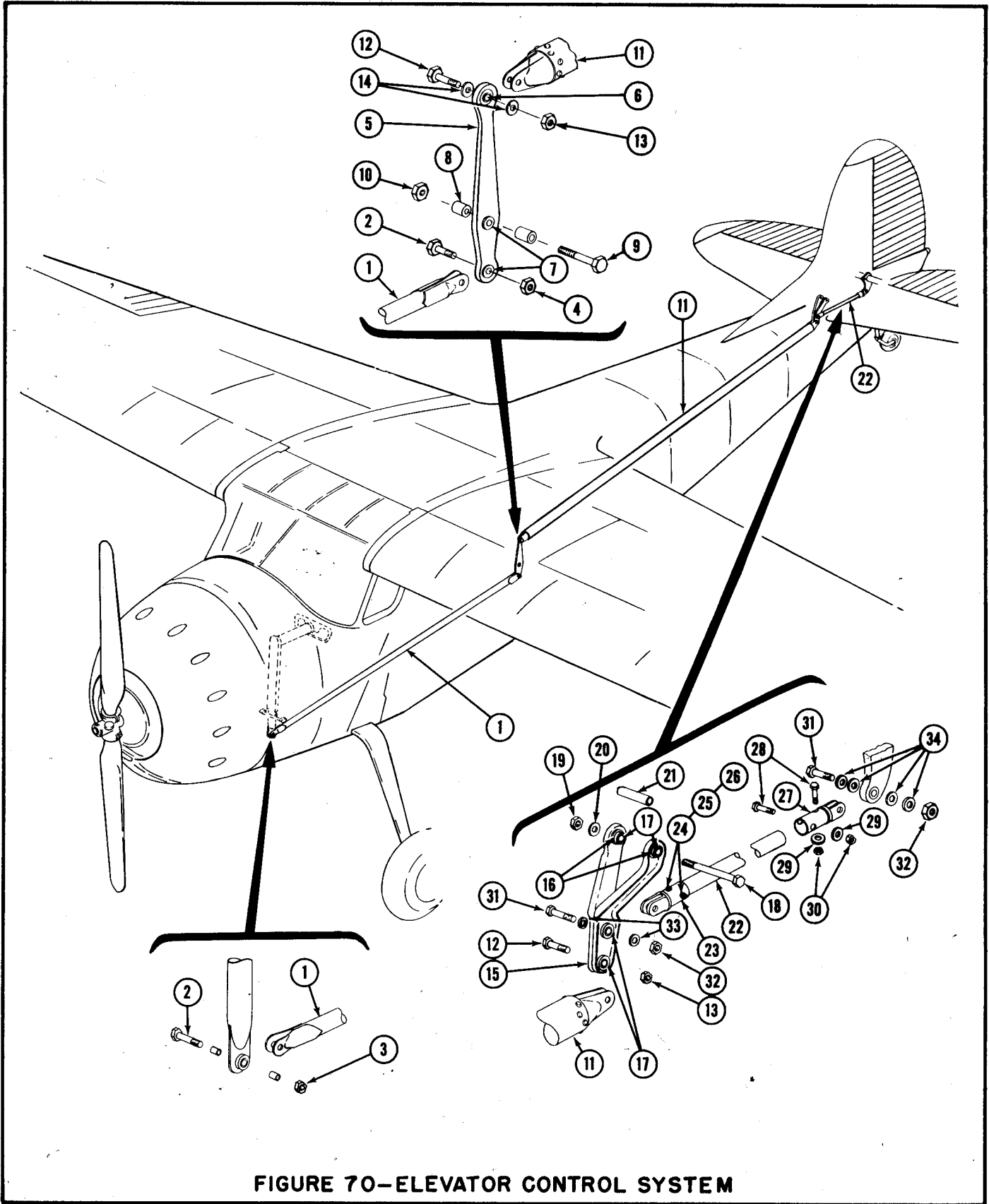


FIGURE 70-ELEVATOR CONTROL SYSTEM





ILLUSTRATED PARTS CATALOG

FIGURE 70

ELEVATOR CONTROL SYSTEM

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
								190	195
		1	2	3	4	5	6	1	1
		System Installation - Elevator control (0310103 Ref)						1	1
70-1	0310188	Tube Assembly - Elevator control front (see figure 19)						Ref	Ref
-2	AN4-11A	Bolt - (Attach tube)						2	2
-3	AN365-1032	Nut - (Attach tube)						1	1
-4	AN365-428	Nut - (Attach tube)						1	1
-5	0310184	Bellcrank Assembly - Elevator control						1	1
-6	KS4	Bearing - Bellcrank upper (Fafnir)						1	1
-7	AR-4-1	Bearing - Bellcrank lower (Torrington)						2	2
-8	0310211	Spacer - Bellcrank attachment (see figure 74)						2	2
-9	AN4-36A	Bolt - (Attach bellcrank) (see figure 74)						1	1
-10	AN365-428	Nut - (Attach bellcrank) (see figure 74)						1	1
-11	0310187	Tube Assembly - Elevator control center						1	1
-12	AN4-11A	Bolt - (Attach tube)						2	2
-13	AN365-428	Nut - (Attach tube)						2	2
-14	AN960-416L	Washer - Tube Front						2	2
-15	0310115	Bellcrank Assembly - Elevator control rear						1	1
-16	0310120	Bushing - Bellcrank top						2	2
-17	AR-4-1	Bearing - Bellcrank (Torrington)						4	4
-18	AN4-34A	Bolt - Bellcrank attachment						1	1
-19	AN365-428	Nut - Bellcrank attachment						1	1
-20	AN960-416	Washer - Bellcrank attachment						1	1
-21	NAS43-4-120	Spacer - Bellcrank attachment						1	1
	0310174	Tube Assembly - Elevator push-pull rear (until supply is exhausted (serials 7003 thru 16132 & 16140)						1	1
	0310202-1	Tube Assembly - Elevator push-pull rear (serials 16133 thru 16139 and 16141 and on)							1
-22	0310174-3	Tube - Elevator push-pull						1	1
-23	0310291	Yoke - Tube end						1	1
-24	AN3-12A	Bolt - (Attach yoke) (Serials 7003 thru 16132 & 16140)						2	2
	AN3-13A	Bolt - (Attach yoke) (Serials 16133 thru 16141 & on)							2
-25	AN365-1032	Nut - (Attach yoke)						2	2
-26	AN960-10	Washer - (Attach yoke)						4	4
-27	0310291	Yoke - Push-pull tube (serials 7003 thru 16132 and 16140)						1	1
	0310291-1	Yoke - Push-pull tube (serials 16133 thru 16139 and 16141 & on)							1
-28	AN3-12A	Bolt - (Attach yoke)						2	2
-29	AN960-10	Washer - (Attach yoke)						2	2
-30	AN365-1032	Nut - (Attach yoke)						2	2
-31	AN4-11A	Bolt - (Attach tube)						2	2
-32	AN365-428	Nut - (Attach tube)						2	2
-33	AN960-416	Washer - (Attach tube)						2	2
-34	AN960-416L	Washer - (Attach tube at rear)						4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

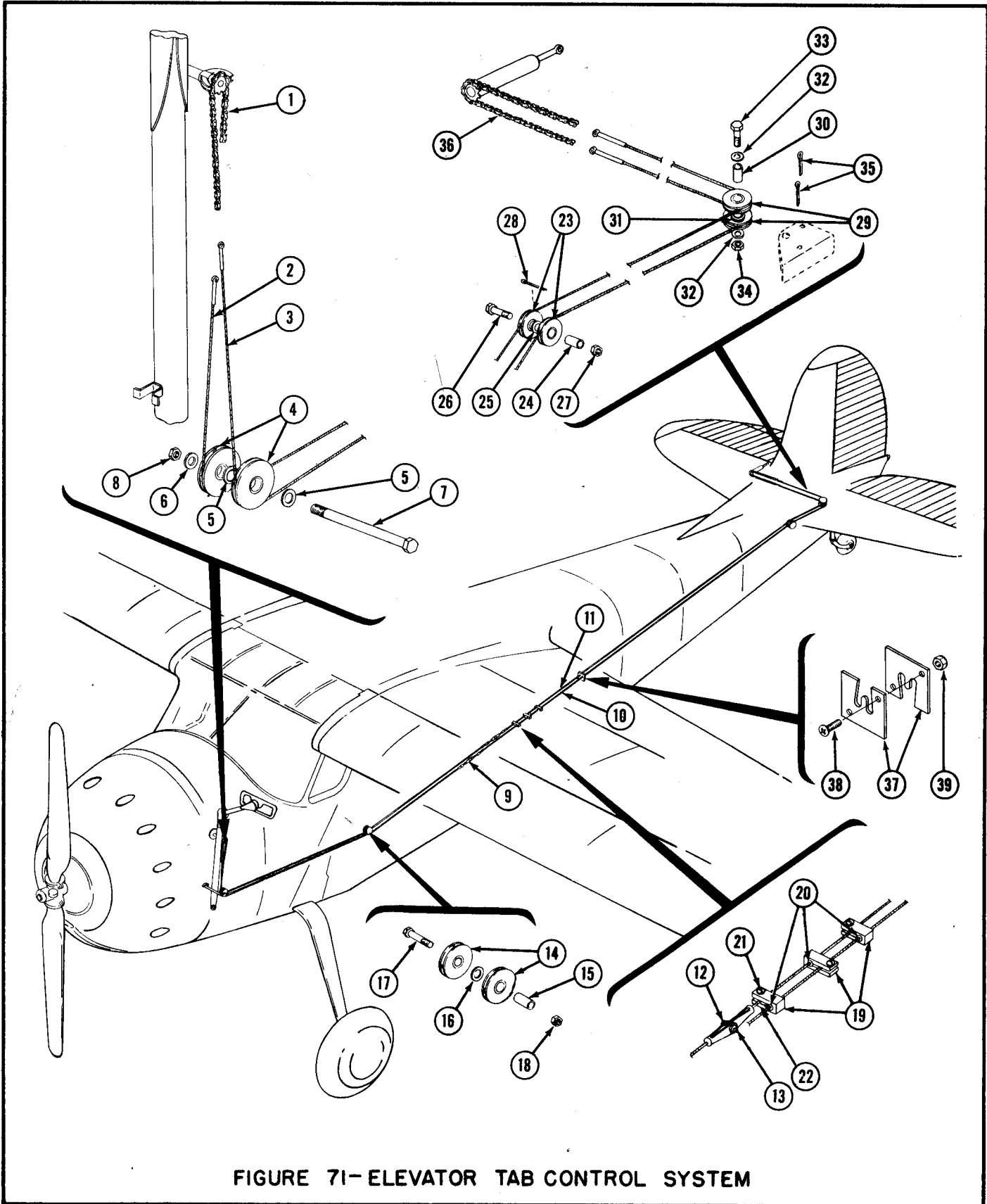


FIGURE 71-ELEVATOR TAB CONTROL SYSTEM



ILLUSTRATED PARTS CATALOG

FIGURE 71

ELEVATOR TAB CONTROL SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Control System Installation - Elevator tab (0310103 Ref)						1	1
71-1	0310183	Chain Assembly - Elevator tab						1	1
-2	0310207-5	Cable Assembly - Elevator tab right (Eff. serials 7003 thru 7437)						1	1
	0310207-54	Cable Assembly - Elevator tab right (Eff. serials 7438 & on)						1	1
-3	0310207-7	Cable Assembly - Elevator tab left (Eff. serials 7003 thru 7437)						1	1
	0310207-55	Cable Assembly - Elevator tab left (Eff. serials 7438 & on)						1	1
-4	0310227	Pulley - Elevator tab						2	2
-5	AN960-816	Washer - (Between pulleys)						2	2
-6	AN960-816L	Washer - (Between pulleys)						1	1
-7	AN6-40A	Bolt - (Attach pulleys)(see figure 74)						Ref	Ref
-8	AN364-624	Nut - (Attach pulleys)(see figure 74)						Ref	Ref
-9	AN155-8S	Barrel - Turnbuckle						1	1
-10	0310207-6	Cable Assembly - Elevator tab aft left						1	1
-11	0310207-13	Cable Assembly - Elevator tab aft right						1	1
-12	AN3-6A	Bolt - (Attach cable)						1	1
-13	AN365-1032	Nut - (Attach cable)						1	1
-14	NAS383-1	Pulley - Elevator tab (Sta. 65.187)						2	2
-15	0411491	Bushing - Elevator tab pulleys						1	1
-16	AN960-416L	Washer - Elevator tab pulleys						1	1
-17	AN3-10A	Bolt - (Attach pulleys)						1	1
-18	AN365-1032	Nut - (Attach pulleys)						1	1
-19	0411523	Block - Elevator stop						3	3
-20	0411524	Bushing - Elevator block						3	3
-21	AN3-6	Bolt - (Attach blocks)						3	3
-22	AN365-1032	Nut - (Attach blocks)						3	3
-23	NAS383-1	Pulley - Elevator tab (Sta. 241.02)						2	2
-24	0411491	Bushing - Elevator tab pulley						1	1
-25	AN960-416	Washer - Elevator tab pulley						1	1
-26	AN3-10A	Bolt - (Attach pulleys)						1	1
-27	AN365-1032	Nut - (Attach pulleys)						1	1
-28	AN380-2-4	Pin - Cotter - (Cable guard)						1	1
-29	NAS383-1	Pulley - Elevator tab rear						2	2
-30	0411491	Bushing - Elevator tab pulley						1	1
-31	AN960-416	Washer - Elevator tab pulley						1	1
-32	AN960-10	Washer - Elevator tab pulley						2	2
-33	AN3-11A	Bolt - (Attach screws)						1	1
-34	AN365-1032	Nut - (Attach pulleys)						1	1
-35	AN380-4-4	Pin - Cotter (cable guard)						2	2
-36	0310183	Chain Assembly - Tab actuator sprocket						1	1
-37	0310192	Fairlead - Elevator tab cable (Sta. 150.00)						2	2
-38	AN526-832R10	Screw - (Attach fairlead)						2	2
-39	AN365-832	Nut - (Attach fairlead)						2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

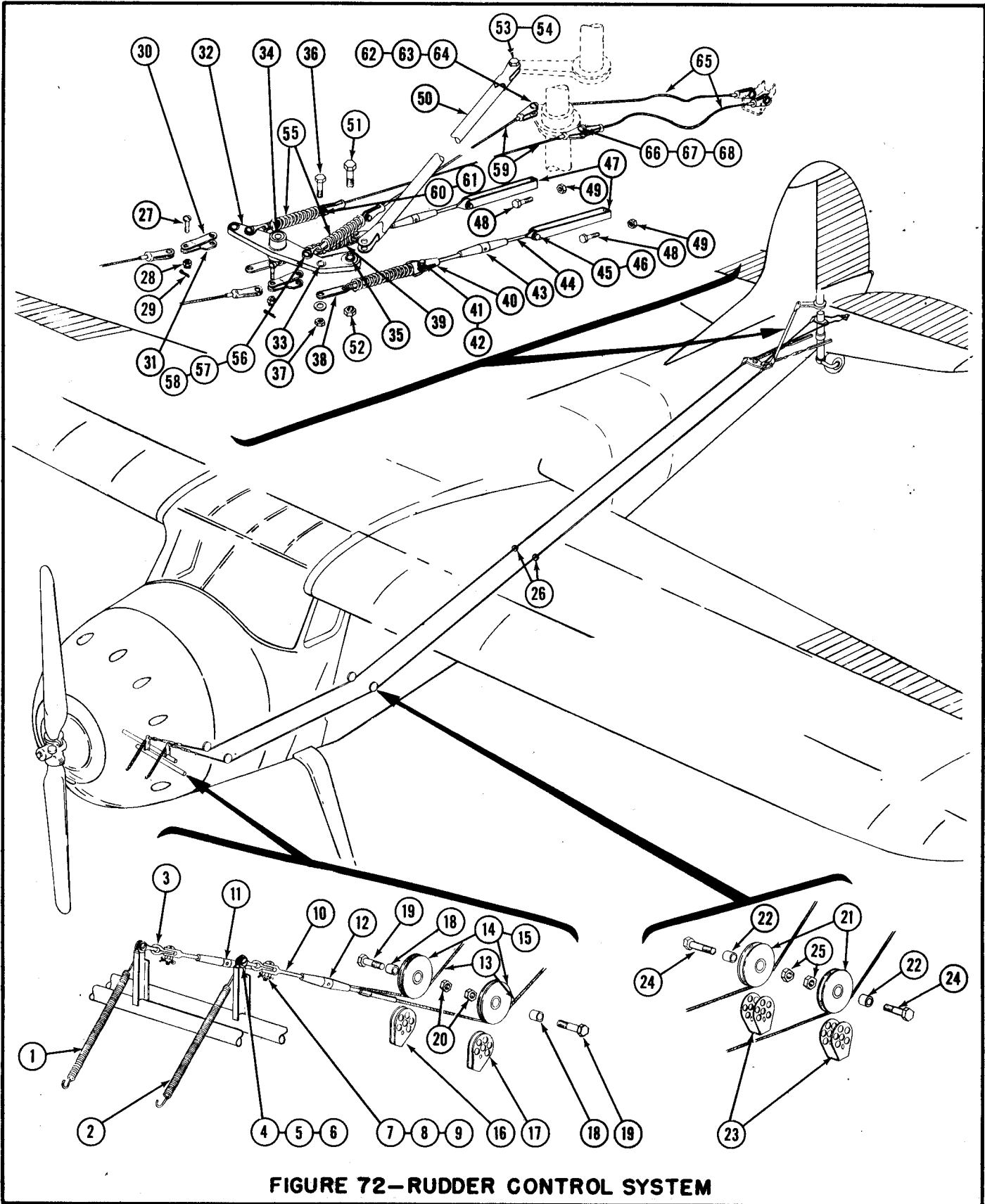


FIGURE 72—RUDDER CONTROL SYSTEM



## ILLUSTRATED PARTS CATALOG

FIGURE 72

## RUDDER CONTROL SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		System Installation - Rudder control (0310103 Ref)						1	1
72-1	0310196-3							1	1
-2	0310196-4							1	1
-3	0411600							2	2
-4	AN23-10							2	2
-5	AN310-3							2	2
-6	AN380-2-2							2	2
-7	AN23-11							2	2
-8	AN310-3							2	2
-9	AN380-2-2							2	2
-10	AN161-22BS							2	2
-11	AN155-32L							1	1
-12	AN155-32S							1	1
-13	0310207-1							2	2
-14	AN210-4A							2	2
-15	NAS383-3							2	2
-16	0411421-2							2	2
-17	0411421-6							2	2
-18	0411489							2	2
-19	AN4-10A							2	2
-20	AN365-428							2	2
-21	NAS383-3							2	2
-22	0411489							2	2
-23	0411421-8							2	2
-24	AN4-14A							2	2
-25	AN365-428							2	2
-26	0412006							2	2
	0410108-2							2	2
-27	AN23-11							2	2
-28	AN310-3							2	2
-29	AN380-2-2							2	2
-30	0310218							2	2
-31	0310219							2	2
-32	0310110							Ref	Ref
-33	0310220							2	2
-34	AR4-1							2	2
-35	KS4							1	1
-36	AN3-7A							2	2
-37	AN365-1032							2	2
-38	0310103-2							2	2
-39	0310336							2	2
-40	AN161-16LS							2	2
-41	AN3-5A							2	2
-42	AN365-1032							2	2
-43	AN155-16S							2	2
-44	AN165-16RS							2	2
-45	AN3-6A							2	2
-46	AN365-1032							2	2
-47	0310410							2	2
-48	AN3-4A							2	2
-49	AN365-1032							2	2
-50	0310155							1	1
-51	AN4-10A							1	1
-52	AN365-428							1	1
-53	AN4-10A							1	1
-54	AN365-428							1	1
-55	0310223							2	2
-56	AN24-15							2	2
-57	AN320-4							2	2
-58	AN380-2-3							2	2
-59	0310207-4							2	2
-60	AN3-6A							2	2
-61	AN365-1032							2	2
-62	AN23-13							2	2
-63	AN310-3							2	2
-64	AN380-2-2							2	2
-65	0310207-12							2	2
-66	AN23-10							2	2
-67	AN320-3							2	2
-68	AN380-2-3							2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

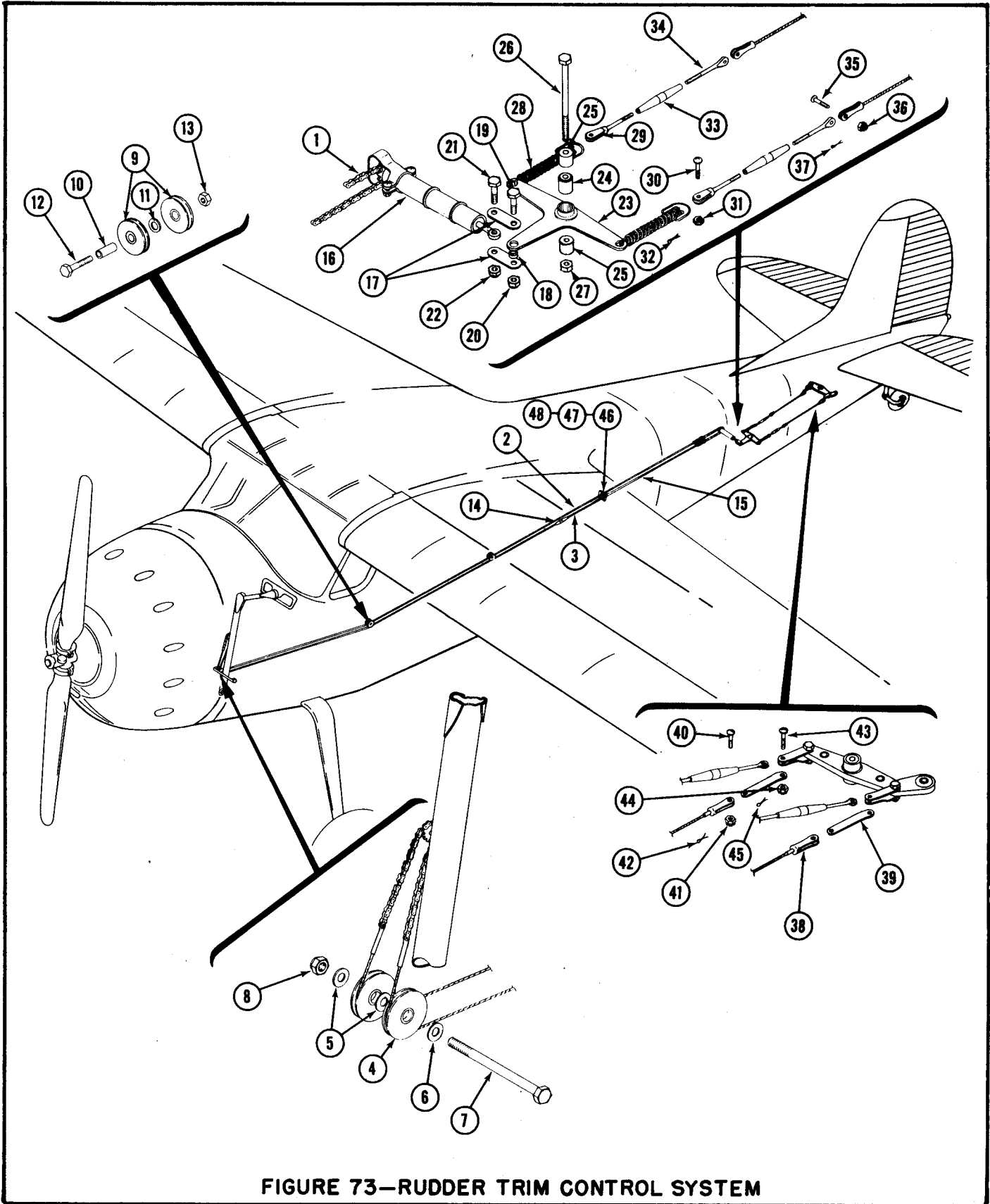


FIGURE 73—RUDDER TRIM CONTROL SYSTEM

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	
		1	2	3	4	5	6	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

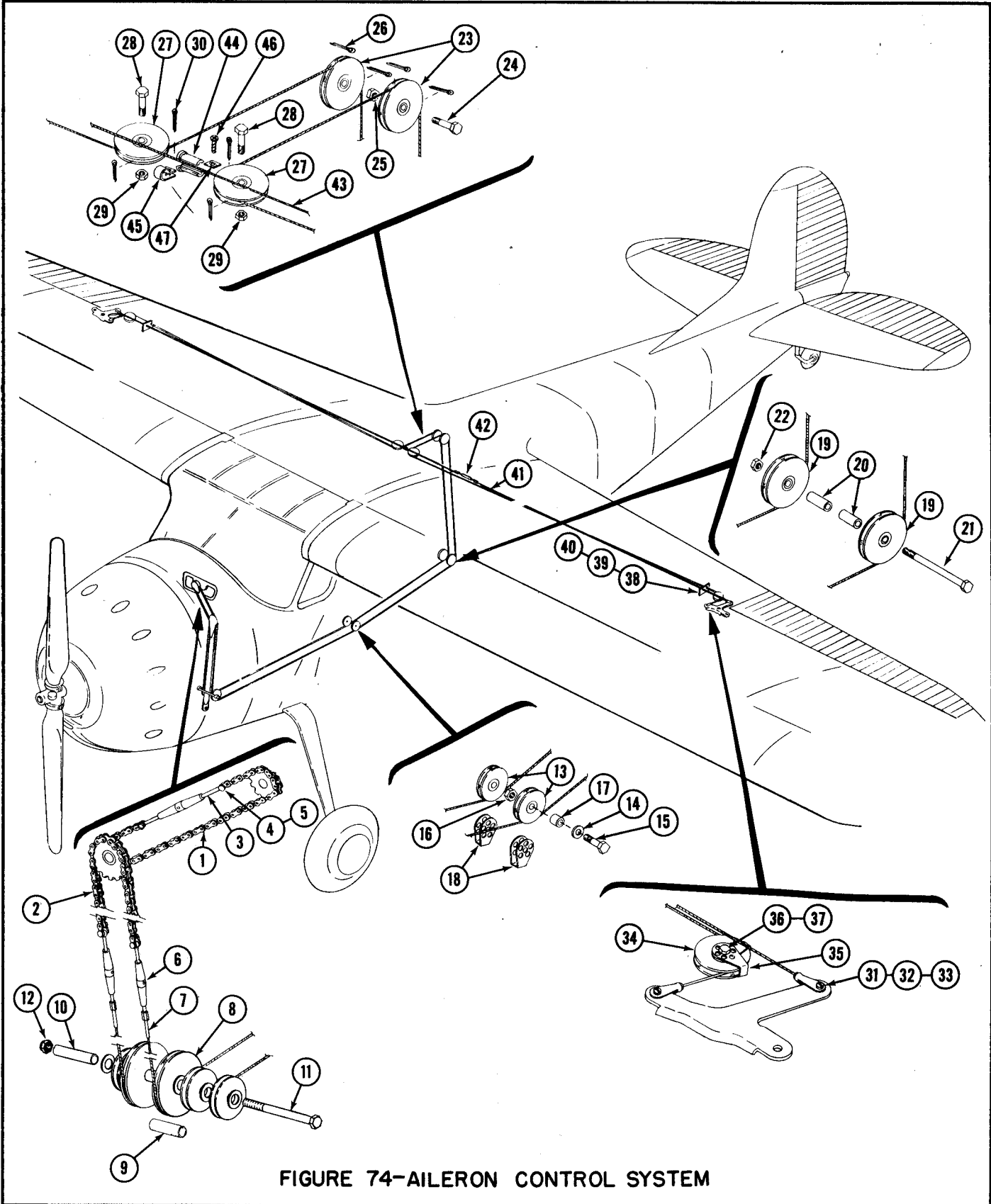


FIGURE 74-AILERON CONTROL SYSTEM





ILLUSTRATED PARTS CATALOG

FIGURE 74

AILERON CONTROL SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		System Installation - Aileron control (0310103 Ref)							
74-1	0310150-3							1	1
-2	0310151							Ref	Ref
-3	NAS288-35RH							Ref	Ref
-4	AN392-13							Ref	Ref
-5	AN380-2-1							Ref	Ref
-6	AN155-32L							2	2
-7	0310207-2							2	2
-8	0310289							2	2
-9	0310228							1	1
-10	0310229							1	1
	0310432							1	1
-11	AN6-40A							1	1
	AN6-44A							1	1
-12	AN364-624							1	1
-13	AN210-3A							2	2
-14	AN960-416L							2	2
-15	AN4-14A							Ref	Ref
-16	AN365-428							Ref	Ref
-17	0411489							Ref	Ref
-18	0411421-8							Ref	Ref
-19	AN210-4A							2	2
-20	0310211							Ref	Ref
-21	AN4-36A							Ref	Ref
-22	AN365-428							Ref	Ref
-23	AN210-4A							2	2
-24	AN4-7A							2	2
-25	AN365-428							2	2
-26	AN380-2-4							4	4
-27	AN210-4A							2	2
-28	AN4-10A							2	2
-29	AN365-428							2	2
-30	AN380-2-4							4	4
-31	AN23-12							4	4
-32	AN310-3							4	4
-33	AN380-2-3							4	4
-34	AN210-4A							2	2
-35	0411421-6							4	4
-36	AN4-11A							2	2
-37	AN365-428							2	2
-38	0320127							2	2
-39	PK76XZ-8-10							4	4
-40	NAS446-4							4	4
-41	0310207-3							1	1
-42	AN155-32L							1	1
-43	0310207-10							1	1
-44	#6							2	2
	0410108-1							1	1
-45	AN742-D6							1	1
-46	PK76XZ-6-6							1	1
-47	NAS446-3							1	1
	0310192							4	4
	AN526-832R10							4	4
	AN365-832							4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

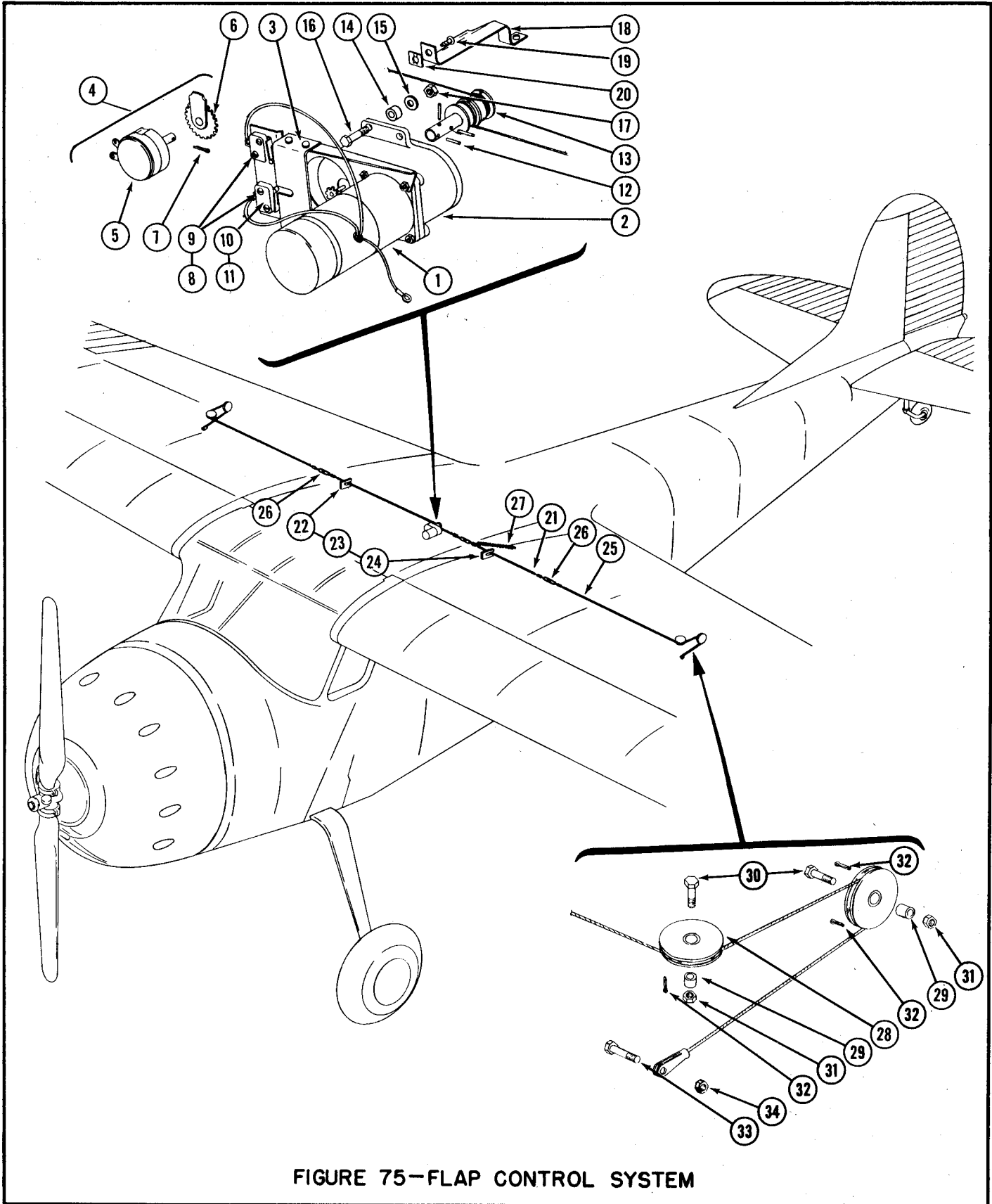


FIGURE 75-FLAP CONTROL SYSTEM



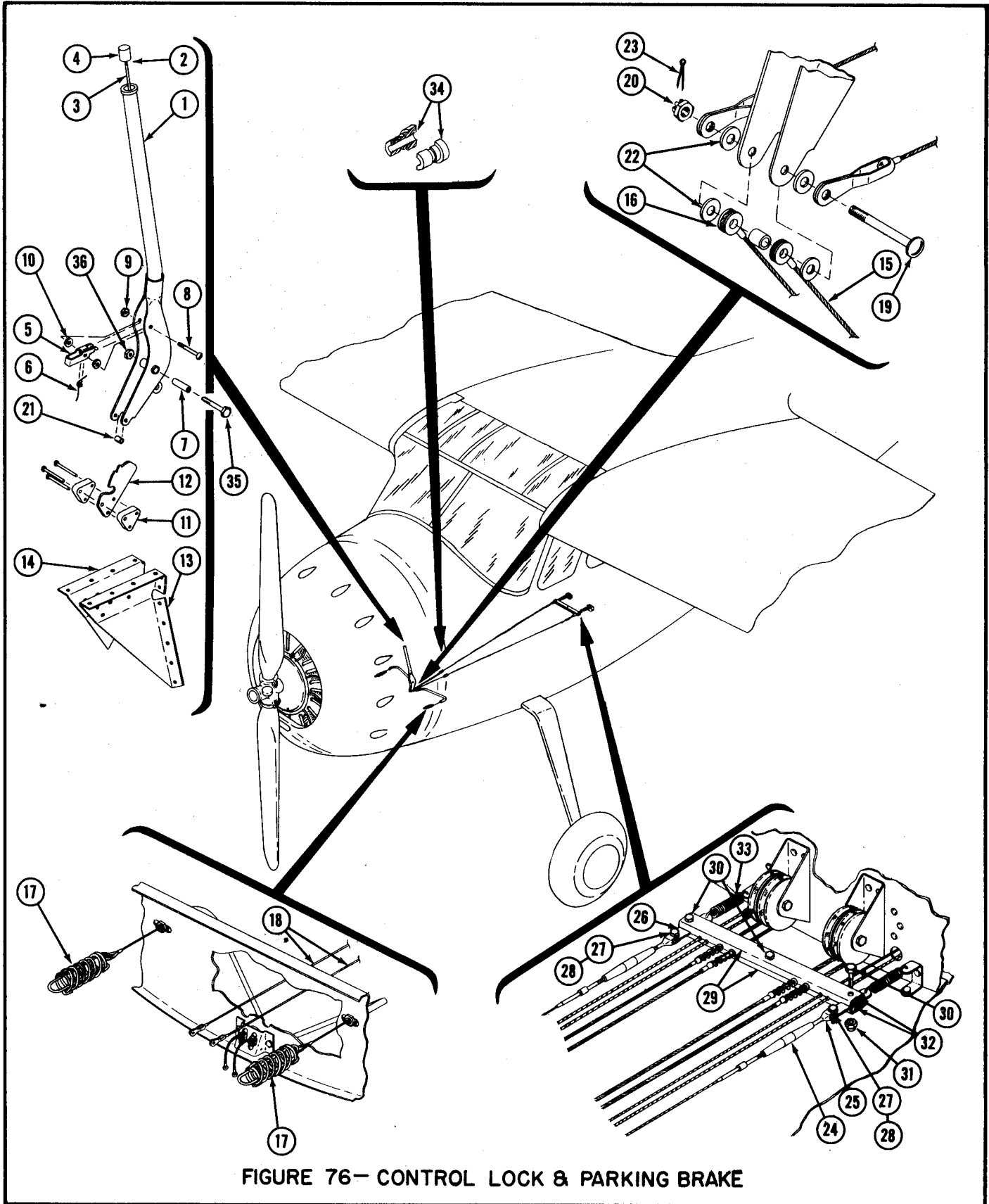


FIGURE 76- CONTROL LOCK & PARKING BRAKE



ILLUSTRATED PARTS CATALOG

FIGURE 76

CONTROL LOCK & PARKING BRAKE SYSTEM INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		System Installation - Control lock & parking brake (0310103 Ref)						1	1
	0310270							1	1
76-1	0310275							1	1
-2	0310276							1	1
-3	0310274							1	1
-4	0425124							1	1
-5	0310189							1	1
-6	0425130							1	1
-7	0425133							1	1
-8	AN23-16A							1	1
-9	AN365-1032							1	1
-10	AN960-10							2	2
	0310231							Ref	Ref
-11	0310264							2	2
-12	0310265							1	1
-13	0310263							1	1
-14	0310263-1							1	1
-15	0310208							Ref	Ref
-16	0310208-1							Ref	Ref
-17	0310280							2	2
-18	0310207-11							2	2
-19	AN23-24							1	1
-20	AN310-3							1	1
-21	0310278							1	1
-22	AN960-10							4	4
-23	AN380-2-2							1	1
-24	AN155-8S							2	2
-25	AN161-8RS							2	2
-26	0310281							2	2
-27	AN3-5A							2	2
-28	AN365-1032							2	2
-29	0310282							2	2
-30	AN3-10A							3	3
-31	AN365-1032							3	3
-32	0310268							2	2
-33	0310283							2	2
-34	0310266							4	4
	0410108-1							4	4
-35	AN3-13A							1	1
-36	AN365-1032							1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

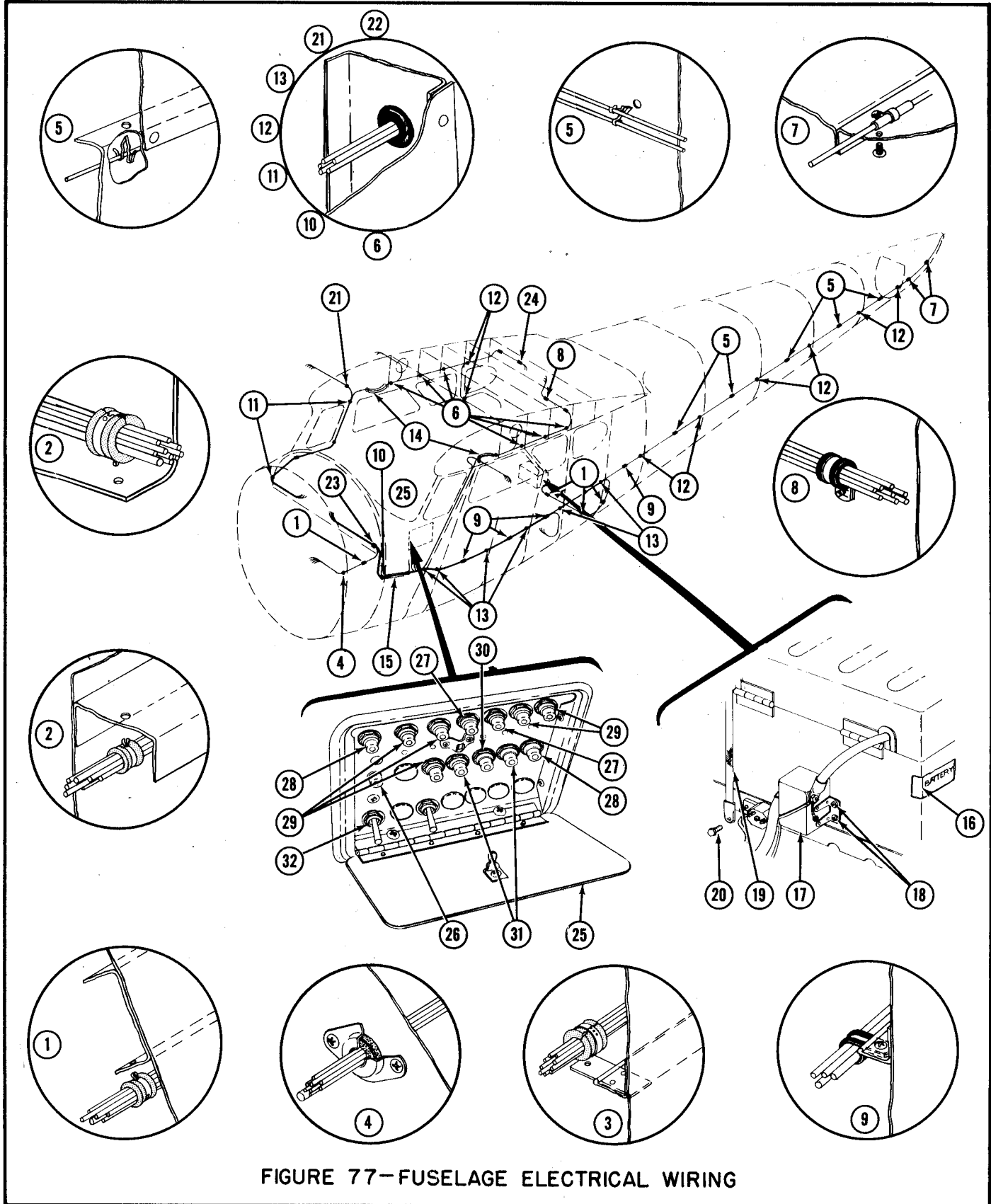


FIGURE 77—FUSELAGE ELECTRICAL WIRING



ILLUSTRATED PARTS CATALOG

FIGURE 77

FUSELAGE ELECTRICAL WIRING INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		Electrical Wiring Installation - Fuselage (0310005 Ref)						1	1
	0310005-50	Wiring Assembly - Fuselage						1	1
77-1	49165	Band - Harness (United Carr)						1	1
-2	49167-1	Band - Harness (United Carr)						2	2
-3	99608	Band - Harness (United Carr)						1	1
-4	AN931-10-14	Grommet - Bulkhead						2	2
-5	A3493-1	Clip - Tinnerman						9	9
-6	AN931-4-7	Grommet						7	7
-7	NAS434-D2	Clamp - (Tinnerman A2981A-2)						2	2
	T-118	Insulator						2	2
	PK76XZ-8-8	Screw - (Attach clamp)						2	2
-8	NAS435-D7	Clamp - (Tinnerman A3047A-7)						7	7
	PK76XZ-8-8	Screw						7	7
	0311330	Bracket - Harness band						1	1
-9	NAS435-D6	Clamp - (Tinnerman A3047A-6)						1	1
	PK76XZ-8-8	Screw - (Attach clamp)						1	1
-10	AN931-10-14	Grommet - (see figure 24 for firewall grommets)						1	1
-11	AN931-6-10	Grommet						3	3
-12	AN931-3-5	Grommet						8	8
-13	AN931-8-13	Grommet						6	6
-14	#2	Transflex Tube (approx. 8 inches long)						2	2
-15	3/4 x 15	Transflex Tube (approx. 15 inches long)						1	1
-16	0311053	Battery - (Reading Batteries Inc. R33 12 volts)						1	1
-17	0411021-1	Contactor - Solenoid (General Electric Co. CR2792-D116A2)						1	1
-18	AN3-3A	Bolt - (Attach contactor)						4	4
	AN365-1032	Nut - (Attach contactor)						4	4
-19	0412007-4	Strap - Battery ground						1	1
-20	AN4-5A	Bolt - (Attach ground strap)						1	1
	AN970-4	Washer						1	1
-21	AN931-5-9	Grommet						2	2
-22	AN931-7-11	Grommet						8	8
-23	NAS435-D14	Clamp						1	1
	PK76XZ-8-8	Screw						1	1
-24	NAS435-D4	Clamp						1	1
	PK76XZ-8-8	Screw						1	1
-25	0311815	Panel Assembly - Circuit breaker (Eff. serials 7350 & on)						1	1
-26	PSM-40	Circuit Breaker - 40 amps						1	1
-27	PSM-25	Circuit Breaker - 25 amps						2	2
-28	PSM-15	Circuit Breaker - 15 amps						2	2
-29	PSM-10	Circuit Breaker - 10 amps						5	5
-30	PSM-5	Circuit Breaker - 5 amps						1	1
-31	PSM-2	Circuit Breaker - 2 amps						2	2
-32	8801-7	Switch						2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

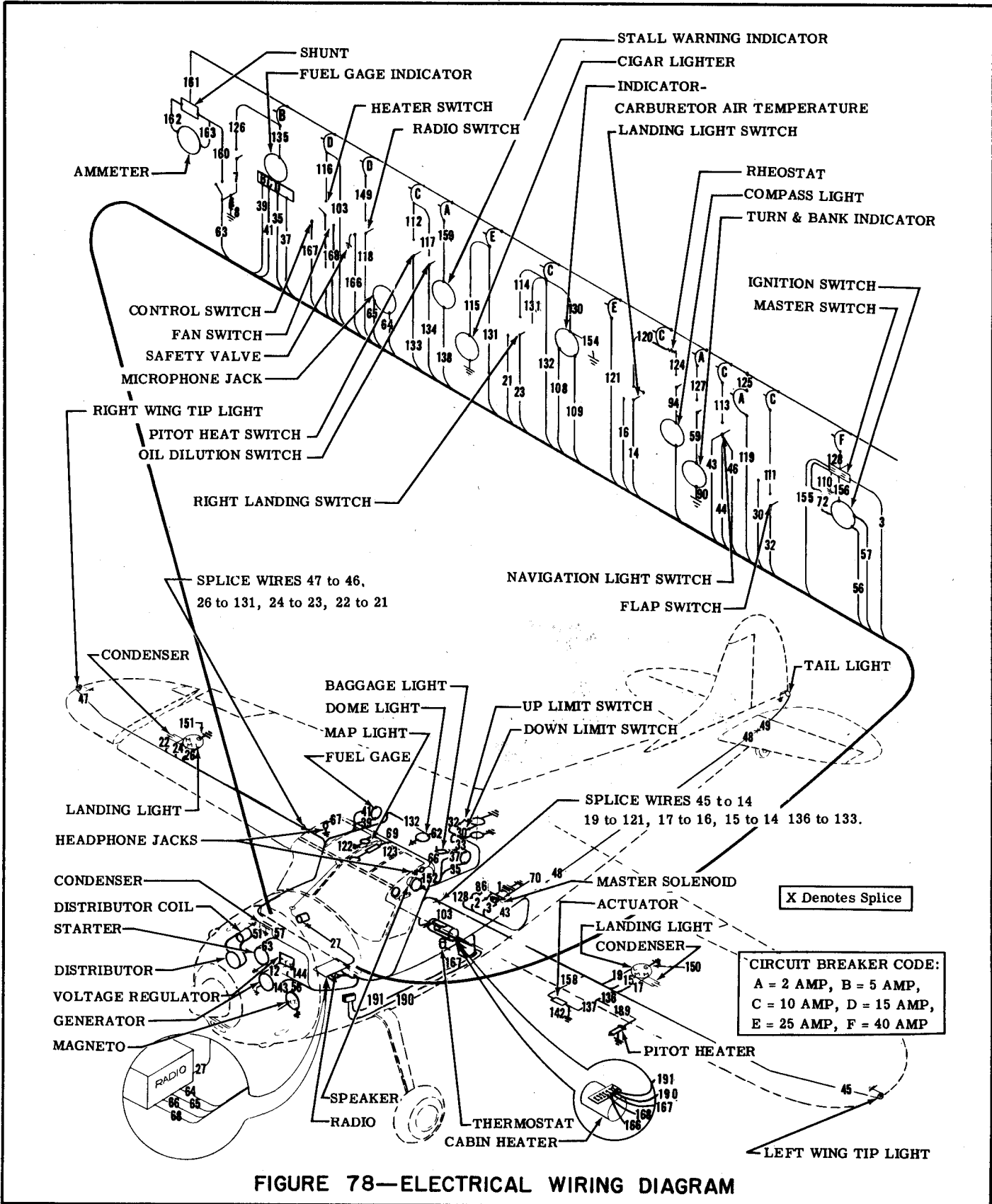


FIGURE 78—ELECTRICAL WIRING DIAGRAM





ILLUSTRATED PARTS CATALOG

FIGURE 78

ELECTRICAL WIRING DIAGRAM

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS		
		1	2	3	4	5	6	190	195	
		Wiring Diagram - Electrical (0300005 Ref)								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	1	1
-7	0300005-7							Wire Assembly (starter switch to starter solenoid)	2	2
	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

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
78-111	0300005-111			Wire Assembly			circuit breaker to flap switch)	1	1
	B-33			Terminal				1	1
	B-77			Terminal				1	1
-112	0300005-112			Wire Assembly			circuit breaker to pitot heat switch)	1	1
	B-33			Terminal				1	1
	B-77			Terminal				1	1
-113	0300005-113			Wire Assembly			circuit breaker to navigation light switch)	1	1
	A-84			Terminal				1	1
	A-77			Terminal				1	1
-114	0300005-114			Wire Assembly			circuit breaker to landing light switch)	1	1
	A-84			Terminal				1	1
	A-77			Terminal				1	1
-115	0300005-115			Wire Assembly			circuit breaker to cigar lighter)	1	1
	A-A			Terminal				1	1
	A-77			Terminal				1	1
-116	0300005-116			Wire Assembly			circuit breaker to heater switch)	1	1
	B-33			Terminal				1	1
	B-77			Terminal				1	1
-117	0300005-117			Wire Assembly			circuit breaker to oil dilution switch)	1	1
	A-77			Terminal				2	2
-118	0300005-118			Wire Assembly			(switch to radio unit)	1	1
	B-77			Terminal				2	2
-119	0300005-119			Wire Assembly			(circuit breaker to flare switch)	1	1
	A-A			Terminal				1	1
	A-77			Terminal				1	1
-120	0300005-120			Wire Assembly			(circuit breaker to landing light switch)	1	1
	A-84			Terminal				1	1
	A-77			Terminal				1	1
-121	0300005-121			Wire Assembly			(circuit breaker to landing light left)	1	1
	C-50			Terminal				1	1
	C-77			Terminal				1	1
-122	0300005-122			Wire Assembly			(circuit breaker to instrument lights)	1	1
	A-77			Terminal				2	2
-123	0300005-123			Wire Assembly			(instrument light to instrument lights)	1	1
	A-77			Terminal				2	2
-124	0300005-124			Wire Assembly			(circuit breaker to compass rheostat)	1	1
	A-84			Terminal				2	2
-125	0300005-125			Wire Assembly			(buss bar to circuit breaker for flares)	1	1
	A-77			Terminal				2	2
-126	0300005-126			Wire Assembly			(starter switch to circuit breaker)	1	1
	A-77			Terminal				1	1
-127	0300005-127			Wire Assembly			(circuit breaker to turn & bank switch)	1	1
	A-77			Terminal				1	1
	A-84			Terminal				1	1
-128	0300005-128			Wire Assembly			(circuit breaker to master switch)	1	1
	C-77			Terminal				2	2
-130	0300005-130			Wire Assembly			(circuit breaker to carburetor air temp gage)	1	1
	A-36			Terminal				1	1
	A-34			Terminal				1	1
-131	0300005-131			Wire Assembly			(circuit breaker to landing light right)	1	1
	C-50			Terminal				1	1
	C-77			Terminal				1	1
-132	0300005-132			Wire Assembly			(circuit breaker to dome light)	1	1
	A-77			Terminal				1	1
-133	0300005-133			Wire Assembly			(pitot heat switch to wing root)	1	1
	B-33			Terminal				1	1
	B-50			Terminal				1	1
-134	0300005-134			Wire Assembly			(switch to oil dilution solenoid)	1	1
	A-36			Terminal				1	1
	A-77			Terminal				1	1
-135	0300005-135			Wire Assembly			(circuit breaker to fuel gage)	1	1
	AN3106-14S-5S			Plug - Electrical				1	1
-136	0300005-136			Wire Assembly			(wing root to pitot heat)	1	1
	B-B			Terminal				2	2
	B-50			Terminal				1	1
-137	0300005-137			Wire Assembly			(wing root to stall warning actuator heat)	1	1
	A-A			Terminal				1	1
-138	0300005-138			Wire Assembly			(stall warning indicator to wing root)	1	1
	A-84			Terminal				1	1
	A-50			Terminal				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	
78-142	0300005-142			Wire Assembly	stall warning actuator to ground)				1	1
	A-77			Terminal					1	1
	A-84			Terminal					1	1
-143	0300005-143			Wire Assembly	switch to generator)				1	1
	A-71			Terminal					1	1
	A-84			Terminal					1	1
-144	0300005-144			Wire Assembly	switch to regulator)				1	1
	A-36			Terminal					1	1
	A-84			Terminal					1	1
-145	0300005-145			Wire Assembly	switch to heater solenoid) (Eff. serials 7003 thru 7512)				1	1
	A-77			Terminal					1	1
	AN3106-8S-1S			Plug - Electrical					1	1
-148	0300005-148			Wire Assembly	wing root to pitot heat)(Eff. serials 7003 thru 16083)				1	1
-149	0300005-149			Wire Assembly	circuit breaker to radio switch)				1	1
	B-B			Terminal					1	1
	B-77			Terminal					1	1
-150	0300005-150			Wire Assembly	landing light to ground)				1	1
	C-36			Terminal					1	1
-151	0300005-151			Wire Assembly	landing light to ground)				1	1
	C-36			Terminal					2	2
-152	0300005-152			Wire Assembly	speaker to switch)				1	1
	A-84			Terminal					1	1
-153	0300005-153			Wire Assembly	switch to auxiliary speaker)				1	1
	A-84			Terminal					1	1
-154	0300005-154			Wire Assembly	carburetor air temp gage to ground)				1	1
	A-77			Terminal					2	2
-155	0300005-155			Wire Assembly	master switch to regulators)				1	1
	C-77			Terminal					1	1
	C-36			Terminal					1	1
-156	0300005-156			Wire Assembly	master switch to ignition switch)				1	1
	A-84			Terminal					2	2
-158	0300005-158			Wire Assembly	wing root to stall warning actuator)				1	1
	A-84			Terminal					1	1
	A-50			Terminal					1	1
-159	0300005-159			Wire Assembly	circuit breaker to stall warning indicator) (Eff. serials 7411 & on)				1	1
	A-84			Terminal					1	1
	A-77			Terminal					1	1
-160	0300005-160			Wire Assembly	starter relay to shunt) (Eff. serials 7532 & on)				1	1
	C-71			Terminal					2	2
-161	0300005-161			Wire Assembly	buss bar to shunt) (Eff. serials 7532 & on)				1	1
	C-77			Terminal					1	1
	C-71			Terminal					1	1
-162	0300005-162			Wire Assembly	shunt to ammeter)				1	1
	A-36			Terminal					1	1
	A-84			Terminal					1	1
-163	0300005-163			Wire Assembly	shunt to ammeter)				1	1
	A-36			Terminal					1	1
	A-84			Terminal					1	1
-166	0300005-166			Wire Assembly	heater circuit breaker to safety valve) (Eff. serials 7411 & on)				1	1
	A-36			Terminal					2	2
-167	0300005-167			Wire Assembly	heater circuit breaker to control switch) (Eff. serials 7441 & on)				1	1
	B-33			Terminal					1	1
	B-77			Terminal					1	1
-168	0300005-168			Wire Assembly	heater circuit breaker to fan switch) (Eff. serials 7514 & on)				1	1
	B-33			Terminal					1	1
	B-77			Terminal					1	1
-189	0300005-189			Wire Assembly	Pitot heater (connection to pitot heater) (Eff. serials 16084 & on)					1
-190	0300005-190			Wire Assembly	circuit breaker to heater thermostat) (Eff. serials 7411 & on)				1	1
	B-36			Terminal					1	1
-191	0300005-191			Wire Assembly	circuit breaker to heater thermostat) (Eff. serials 7411 & on)				1	1
	B-36			Terminal					2	2

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

## **OPTIONAL EQUIPMENT SECTION**

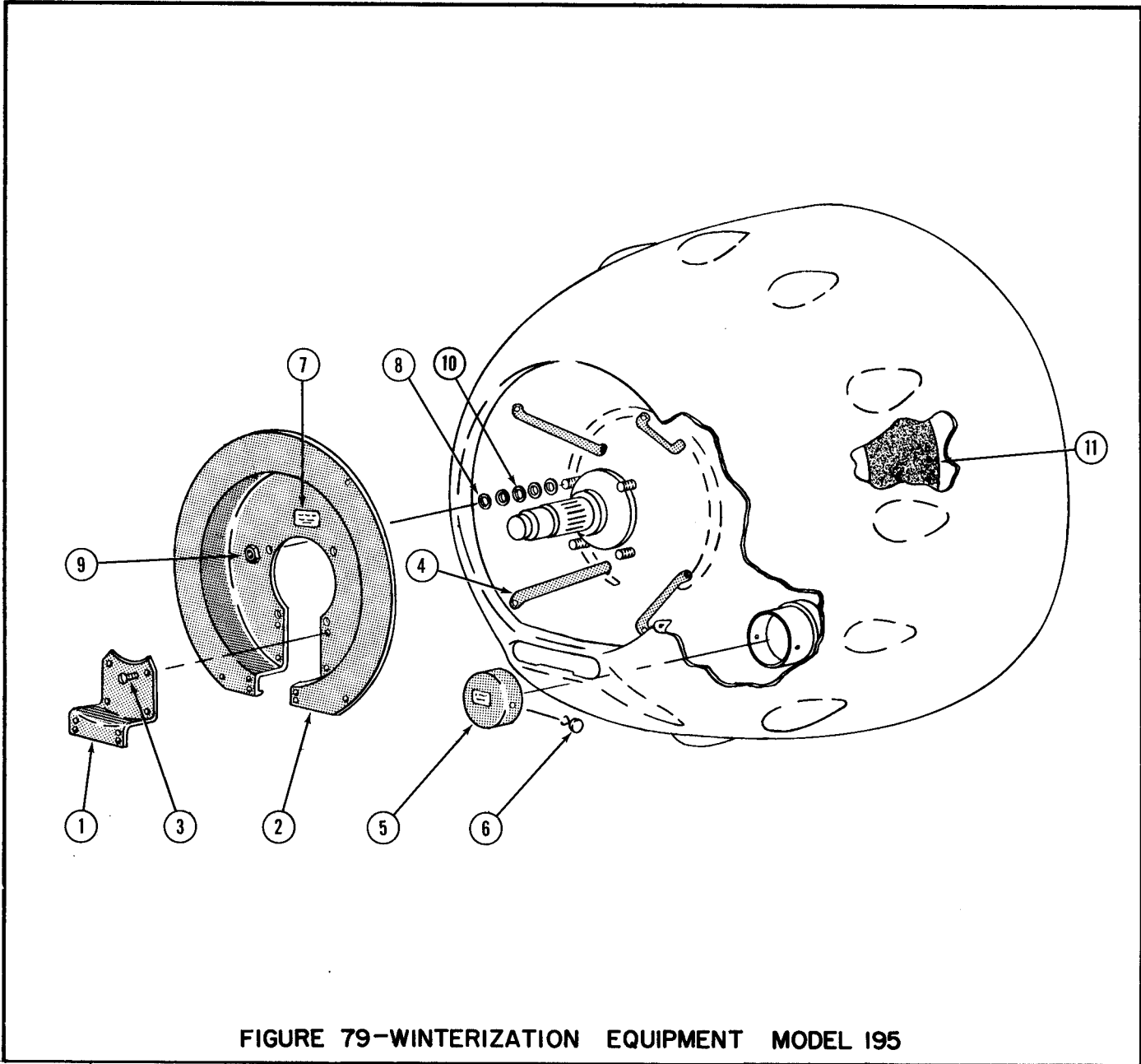


FIGURE 79—WINTERIZATION EQUIPMENT MODEL 195

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
			52-3-545	Installation Kit - Winterization (Cessna 0350285-20)					
79-1	0350285-3	Plate Assembly - Winter front lower							1
-2	0350285-17	Plate Assembly - Winter front							1
-3	AN526-1032R10	Screw - (Attach plate)							8
-4	0350285-14	Bracket Assembly - Winter front							4
-5	0350286	Cover - Oil cooler							1
-6	49330-F2	Fastener - United Carr (attach cover)							2
-7	0350287	Decal - 50° winterization							1
-8	AN960-10L	Washer							8
-9	AN365-624	Nut							4
-10	AN960-616	Washer							20
	52-3-526	Installation Kit - Muff covers (Cessna 0350294)							1
-11	0350294-3	Cover - Right muff							1
	0350294-4	Cover - Left muff							1

## ILLUSTRATED PARTS CATALOG

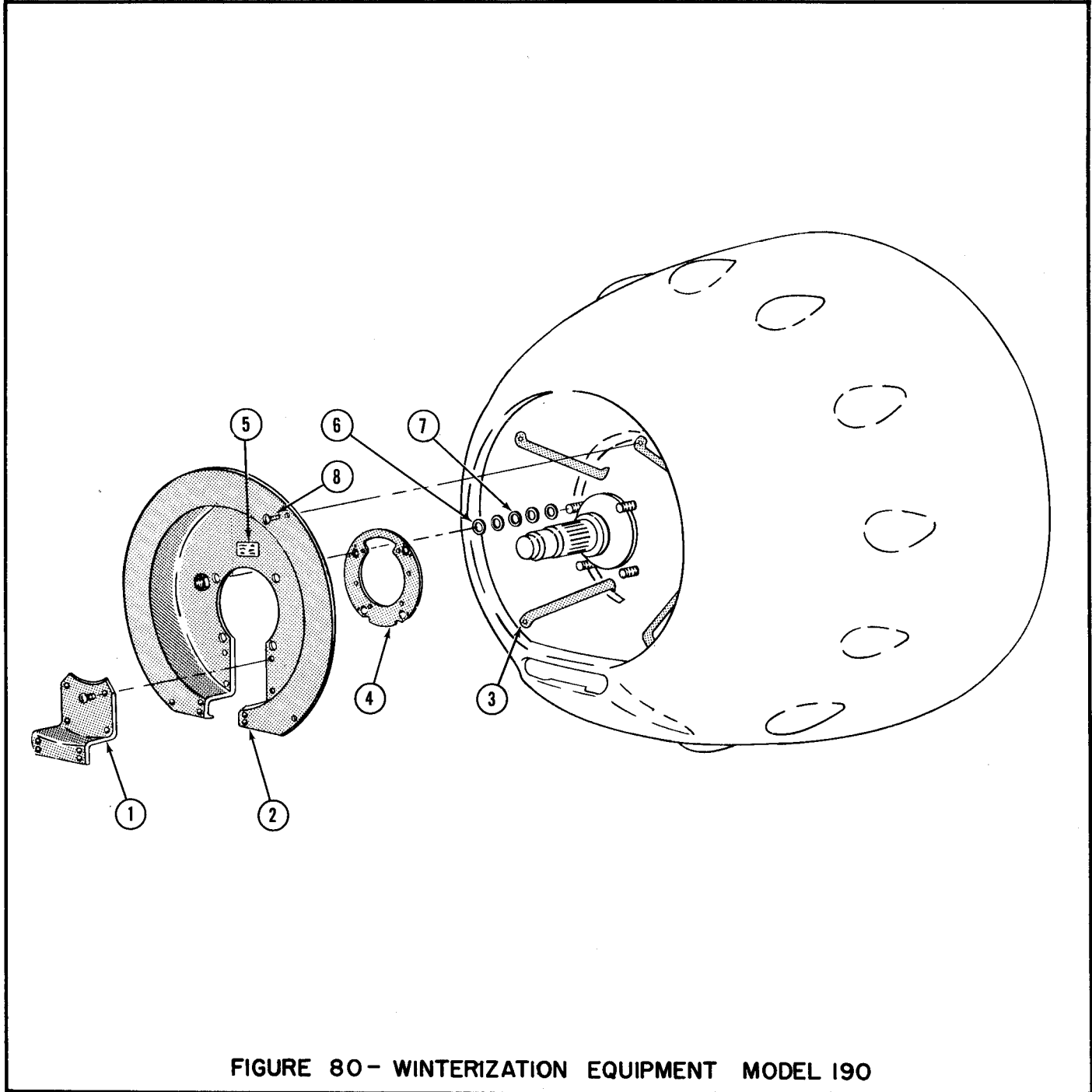


FIGURE 80 - WINTERIZATION EQUIPMENT MODEL 190

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	52-3-568	Installation Kit - Winterization (Cessna 0350285)						1	
80-1	0350285-3							1	
-2	0350285-17							1	
-3	0350285-16							4	
-4	0350302							1	
-5	0350287							1	
-6	AN960-10L							8	
-7	AN960-616							4	
-8	AN526-1032R10							8	

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

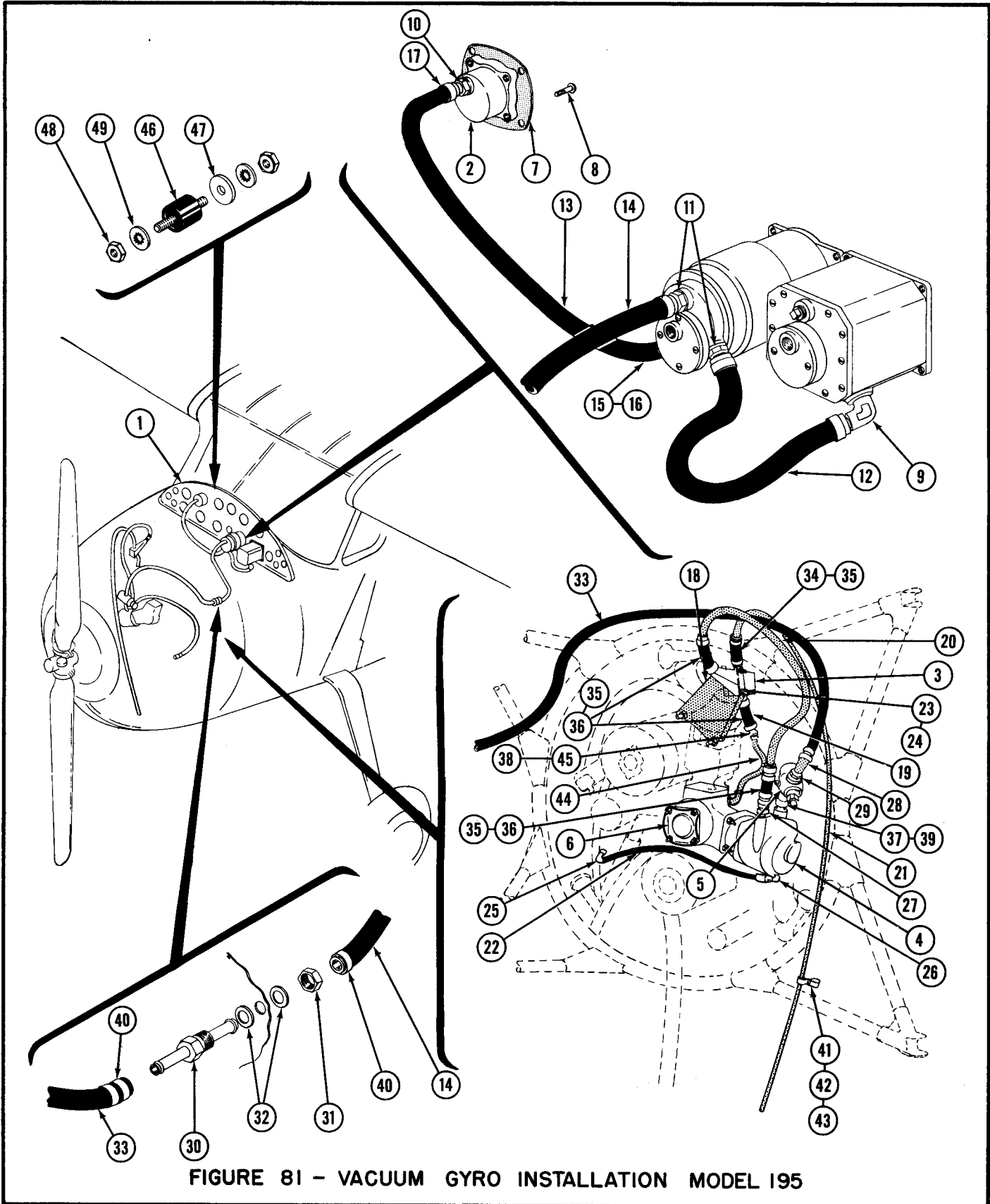


FIGURE 81 - VACUUM GYRO INSTALLATION MODEL 195

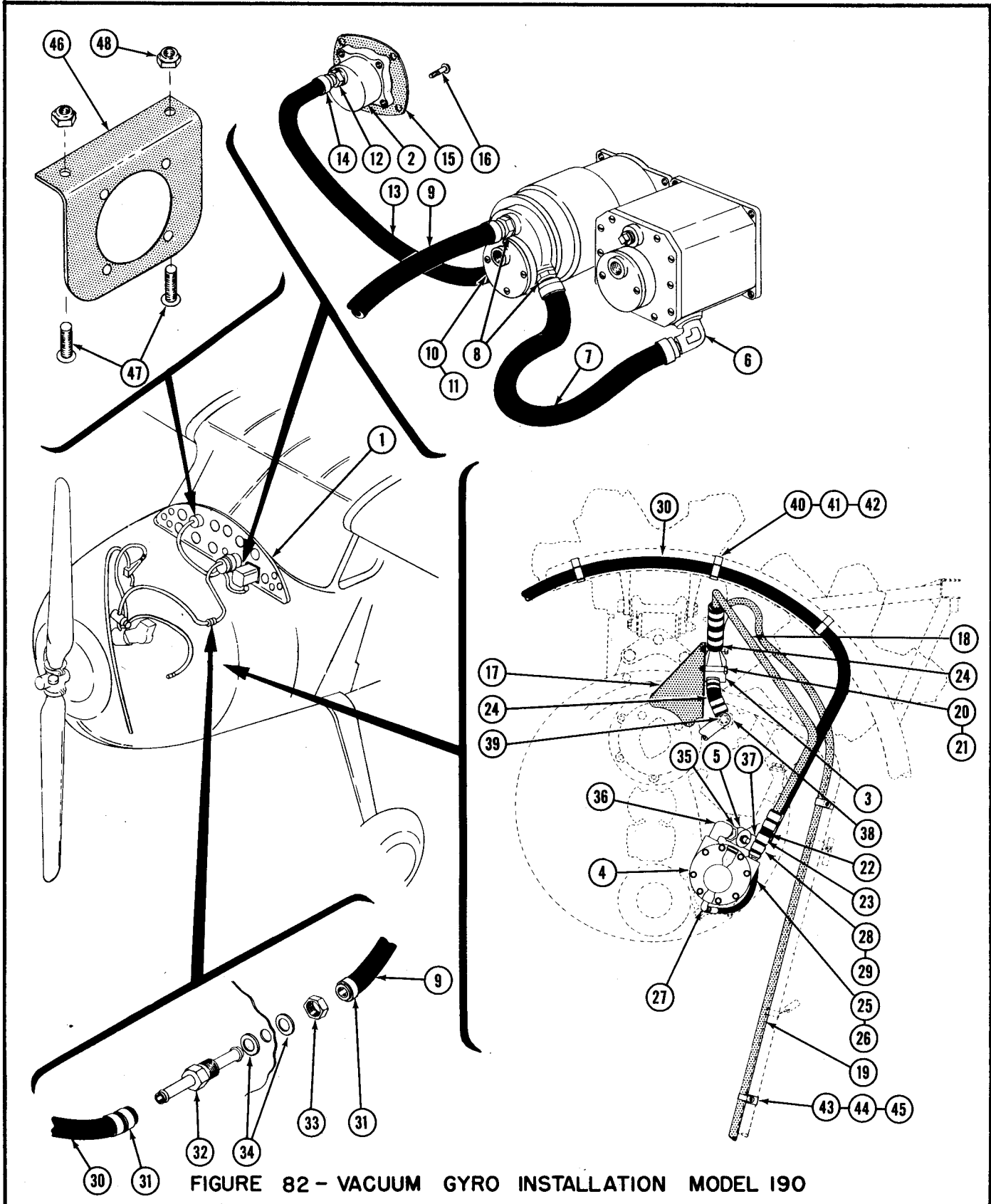




ILLUSTRATED PARTS CATALOG

FIGURE 81 OPTIONAL EQUIPMENT - VACUUM GYRO INSTALLATION (MODEL 195)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	52-3-521	Installation Kit - Vacuum gyro (Cessna 0350103)		1
81-1	0311558-3	Cover Assembly - Instrument panel		1
-2	0311057-2	Gage - Suction		1
-3	0750103-1	Oil Separator - (Pesco 35 218 R)		1
-4	3P-194E	Pump - Vacuum (Pesco)		1
-5	0511059	Valve - Suction relief (Pesco 3V-195)		1
-6	776D-6A	Accessory Drive - Jacobs		1
	52-3-521	Installation Kit - Vacuum gyro (Cessna 0350103)		1
-7	0311744	Plate - Adapter (suction gage)		1
-8	AN515-6R-14	Screw - (Attach suction gage adapter plate)		4
-9	AN842-6D	Elbow - Directional gyro		1
-10	AN840-4D	Adapter - Suction gage		1
-11	AN840-6D	Adapter - Gyro horizon		2
-12	AN884-6-52	Hose Assembly - (Between gyros)		1
-13	AN884-4-64	Hose Assembly - (Suction gage to gyro)		1
-14	AN884-6-48	Hose Assembly - (Gyro to firewall)		1
-15	AN842-4D	Hose Fitting - Gyro horizon		1
-16	AN912-1D	Bushing - Gyro horizon		1
-17	NAS397-10	Clamp - (Tinnerman A3122-10-59)		6
-18	0350103-3	Bracket - Oil separator mount		1
-19	0350103-5	Tube - Hose liner		1
-20	0300106-37	Line - Vacuum pump to separator		1
-21	0300106-60	Line - Oil separator vent (serials 7410 & on)		1
-22	0350255-1	Hose Assembly - Vacuum pump		1
-23	AN3-15A	Bolt - (Attach oil separator)		2
-24	AN365-1032	Nut - (Attach oil separator)		2
-25	AN816-2D	Nipple - Oil line		1
-26	AN822-2B	Elbow - Vacuum pump		1
-27	AN840-8	Adapter - Vacuum pump		1
-28	AN842-6D	Elbow - Suction relief valve		1
-29	AN912-2	Bushing - Suction relief valve		1
-30	AN849-6D	Connector - Suction line		1
-31	AN924-6D	Nut - Firewall connector		1
-32	AN960-A916L	Washer - Firewall connector		2
-33	AN884-6-128	Hose - Suction relief valve to firewall		1
-34	AN884-8-10	Hose - Oil separator to vent line		1
-35	NAS397-14	Clamp - (Attach hose) (Tinnerman A3122-14-59)		10
-36	AN884-8-12	Hose - Oil separator		3
-37	AN911-3	Nipple - Suction relief valve		1
-38	AN912-1	Bushing - Engine case		1
-39	AN915-3	Elbow - Vacuum pump		1
-40	NAS397-12	Clamp - (Tinnerman A3122-12-59)		8
-41	NAS434-D12	Clamp - (Tinnerman A2981A-12)		2
-42	AN742-D8	Clamp - (Tinnerman A2980A-8)		2
-43	PK76XZ-10-8	Screw - (Attach clamp)		2
-44	0350303	Line - Oil separator drain		1
-45	AN823-6	Elbow - Engine case		1
-46	0411059-1	Shock Mount - Instrument panel		1
-47	0311585	Spacer - Shock mount		2
-48	AN340-8	Nut - (Attach shock mount)		2
-49	AN936-A8	Washer		2
		NOTE:		
		See figure 82 for relocation of suction gage		
		when a Cessna Radio Combination #4 is installed.		





## ILLUSTRATED PARTS CATALOG

FIGURE 82

OPTIONAL EQUIPMENT - VACUUM GYRO INSTALLATION (MODEL 190)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	52-3-570	Installation Kit - Vacuum gyro (Cessna 0350104)						1	
82-1	0311558-3	Cover Assembly - Instrument panel						1	
-2	0311057-2	Gage - Suction						1	
-3	3S-218-R	Oil Separator - Pesco						1	
-4	0350299	Pump Assembly - Vacuum (Romec P-207)						1	
-5	0511059	Valve - Relief (Pesco 5V-195)						1	
	52-3-605	Installation Kit - Vacuum gyro hardware						1	
-6	AN842-6D	Elbow - Directional gyro						1	
-7	AN884-6-52	Hose - Directional gyro to gyro horizon						1	
-8	AN840-6D	Adapter - Gyro horizon						2	
-9	AN884-6-48	Hose - Gyro horizon to firewall						1	
-10	AN912-1D	Bushing - Gyro horizon						1	
-11	AN842-4D	Elbow - Gyro horizon						1	
-12	AN840-4D	Adapter - Suction gage						1	
-13	AN884-4-64	Hose - Suction gage to gyro horizon						1	
-14	NAS397-10	Clamp - (Attach hose)						6	
-15	0311744	Plate - Adapter (suction gage)						1	
-16	AN515-6R-14	Screw - (Attach adapter plate)						4	
-17	0350104-3	Bracket - Oil separator mounting						1	
-18	0300106-61	Line - Vacuum pump to separator						1	
-19	0300106-62	Line - Oil separator drain						1	
-20	AN3-15A	Bolt - (Attach oil separator)						2	
-21	AN365-1032	Nut - (Attach oil separator)						2	
-22	AN884-8-12	Hose - Oil separator and vacuum pump						1	
-23	NAS397-14	Clamp - (Attach hose)						10	
-24	AN884-8-10	Hose - Oil separator						2	
-25	0350255-5	Hose Assembly - Oil						1	
-26	AN823-2B	Elbow - Oil hose to engine case						1	
-27	AN822-2B	Elbow - Oil hose to vacuum pump						1	
-28	AN912-2	Bushing - Relief valve						1	
-29	AN842-6D	Elbow - Relief valve						1	
-30	AN844-6-172	Hose - Relief valve to firewall						1	
-31	NAS397-12	Clamp - (Attach hose)						4	
-32	AN849-6D	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	0350313-1	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-8-8	Screw - (Attach clamp)						2	
		NOTE							
		To install these kits on 190 airplanes prior to serials 7272, it is permissible to remove the fuel pump and install the vacuum pump in its place if placard 0311852 is installed at the fuel selector valve in lieu of 0311453 placard.							
-46	0313313	* 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).							

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

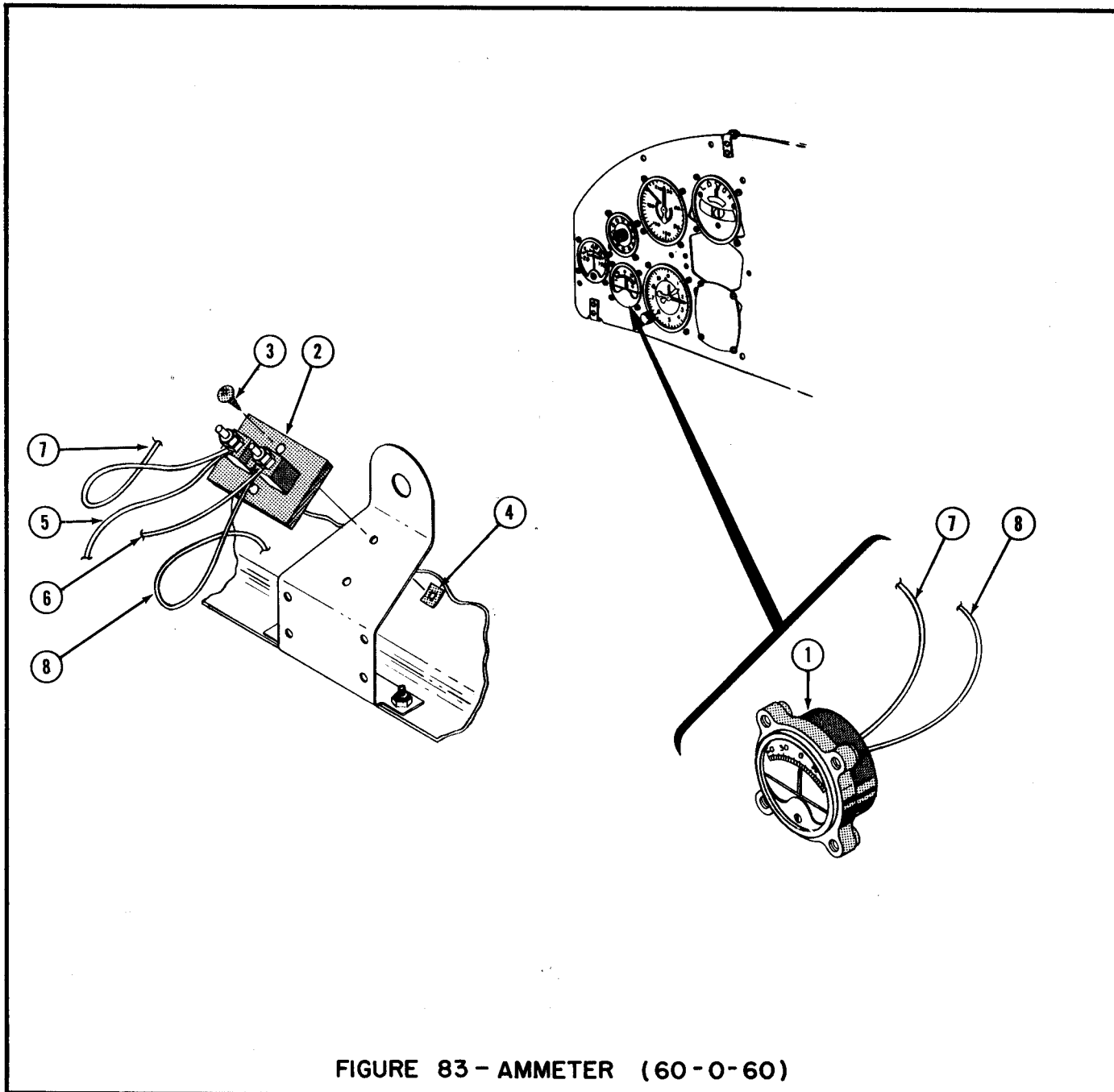


FIGURE 83 - AMMETER (60-0-60)

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS							
			190	195						
			1	2	3	4	5	6		
	52-3-597	Installation Kit - Ammeter (Eff. serials 7003 thru 7531)	1	1						
83-1	0311037-5	Ammeter - General Electric 53ABD4 (range 60-0-60)	1	1						
-2	NAF-1091-1-60	Shunt - Ammeter	1	1						
-3	PK76XZ-8-10	Screw - (Attach shunt)	2	2						
-4	NAS446-4	Nut - (Attach shunt)	2	2						
-5	0300005-160	Wire Assembly - (Starter relay to shunt)	1	1						
-6	0300005-161	Wire Assembly - (Buss bar to shunt)	1	1						
-7	0300005-162	Wire Assembly - (Shunt to ammeter)	1	1						
-8	0300005-163	Wire Assembly - (Shunt to ammeter)	1	1						
		NOTE:								
		For serials 7532 & on see figure 45.								

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

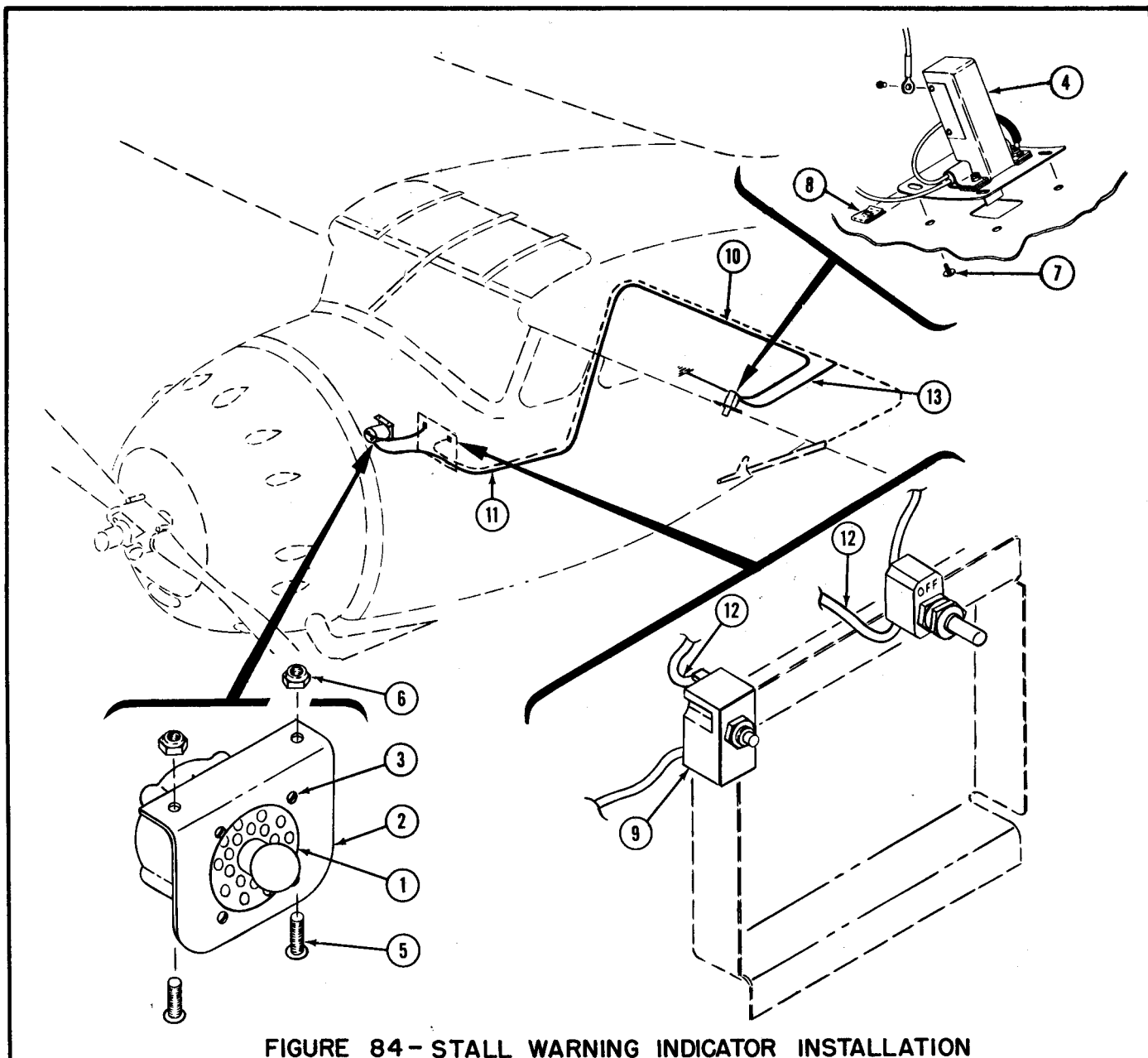


FIGURE 84 - STALL WARNING INDICATOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	52-3-535	Installation Kit - Stall warning (Eff. serials 7003 thru 7410)	1	1
84-1	0511062-2	Indicator - Stall warning	1	1
-2	0313313-3	Bracket - Indicator mounting	1	1
-3	AN526-632R9	Screw - (Attach indicator)	4	4
-4	0511062-5	Actuator - Stall warning	1	1
-5	PK76XZ-8-6	Screw - (Attach bracket)	4	4
-6	NAS397-17-3	Nut - (Attach bracket)	4	4
-7	AN526-10R8	Screw - (Attach actuator)	2	2
-8	AN365-1032	Nut - (Attach actuator)	2	2
-9	PSM-2N	Circuit Breaker - Klixon	1	1
-10	0300005-137	Wire Assembly - (Wing root to stall warning actuator)	1	1
-11	0300005-138	Wire Assembly - (Indicator to wing root)	1	1
-12	0300005-140	Wire Assembly - (Circuit breaker to switch)	1	1
-13	0300005-158	Wire Assembly - (Wing root to stall warning actuator)	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

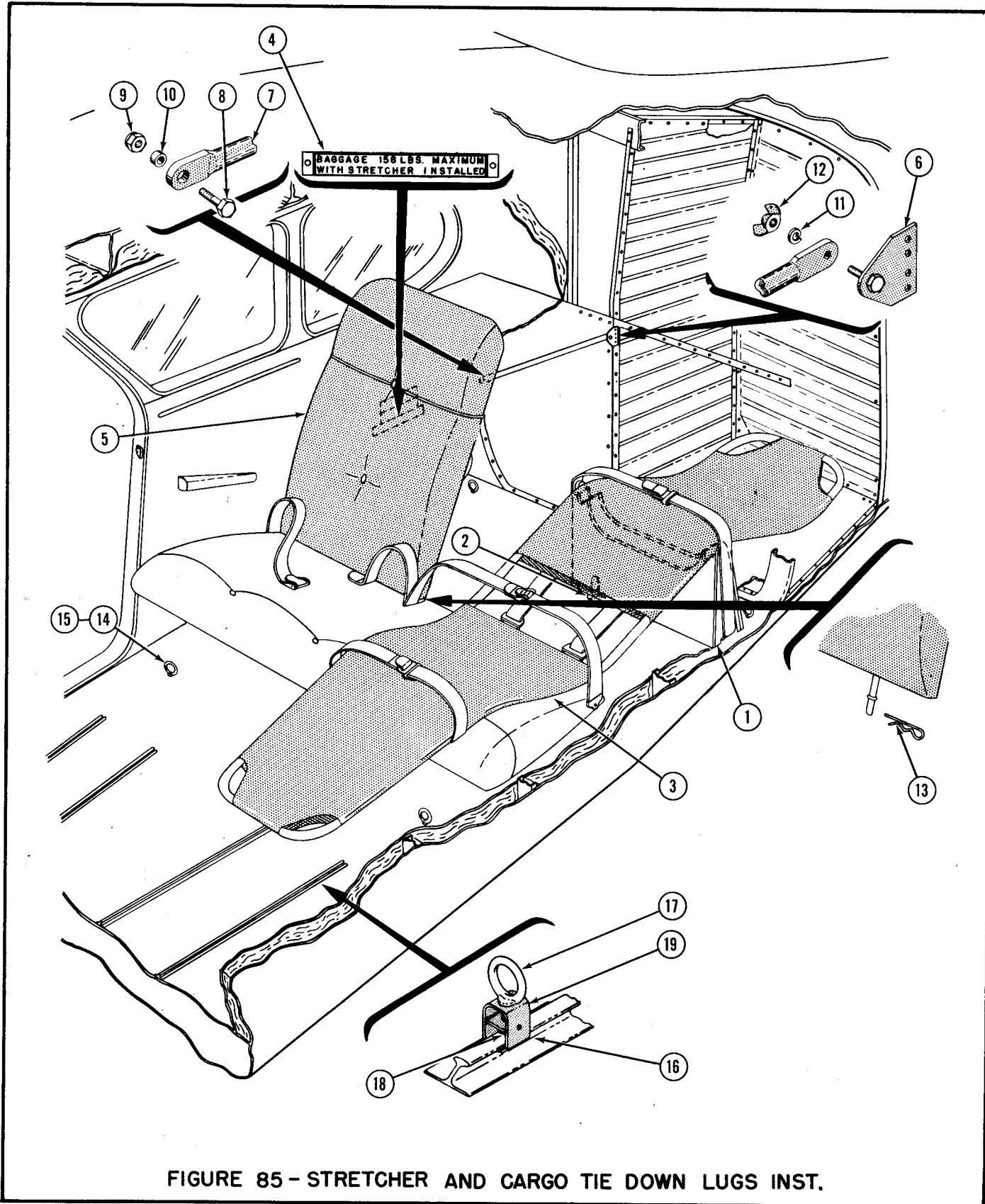


FIGURE 85 - STRETCHER AND CARGO TIE DOWN LUGS INST.



ILLUSTRATED PARTS CATALOG

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

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
		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
85-1	0300109	Support Assembly - Stretcher						1	1
	AN366F1032	Nutplate - (Attach support)						2	2
-2	AN3-3A	Bolt - (Attach support)						2	2
-3	100	Stretcher - Gran portable						1	1
-4	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).							
-5	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.							
-6	0300111-8	Bracket Assembly - Seat brace						1	1
-7	0300111-10	Brace - Seat back						1	1
-8	AN3-4A	Bolt - (Attach brace)						1	1
-9	AN365-1032	Nut - (Attach brace)						1	1
-10	NAS43-3-8	Spacer						1	1
-11	AN935-10	Washer						1	1
-12	AN350-1032	Nut - (Attach brace at rear)						1	1
-13	AN415A	Pin - (Attach seat back to seat bottom)						2	2
	52-3-553	Installation Kit Cargo tie down lugs						1	1
-14	0511165	Eyebolt - Cargo tie down						7	7
-15	AN366-F428	Nutplate						7	7
-16	0511166	Slide Assembly - Cargo tie down						2	2
-17	0511165	Eyebolt						4	4
-18	AN365-428	Nut						4	4
-19	0311312-4	Housing						4	4

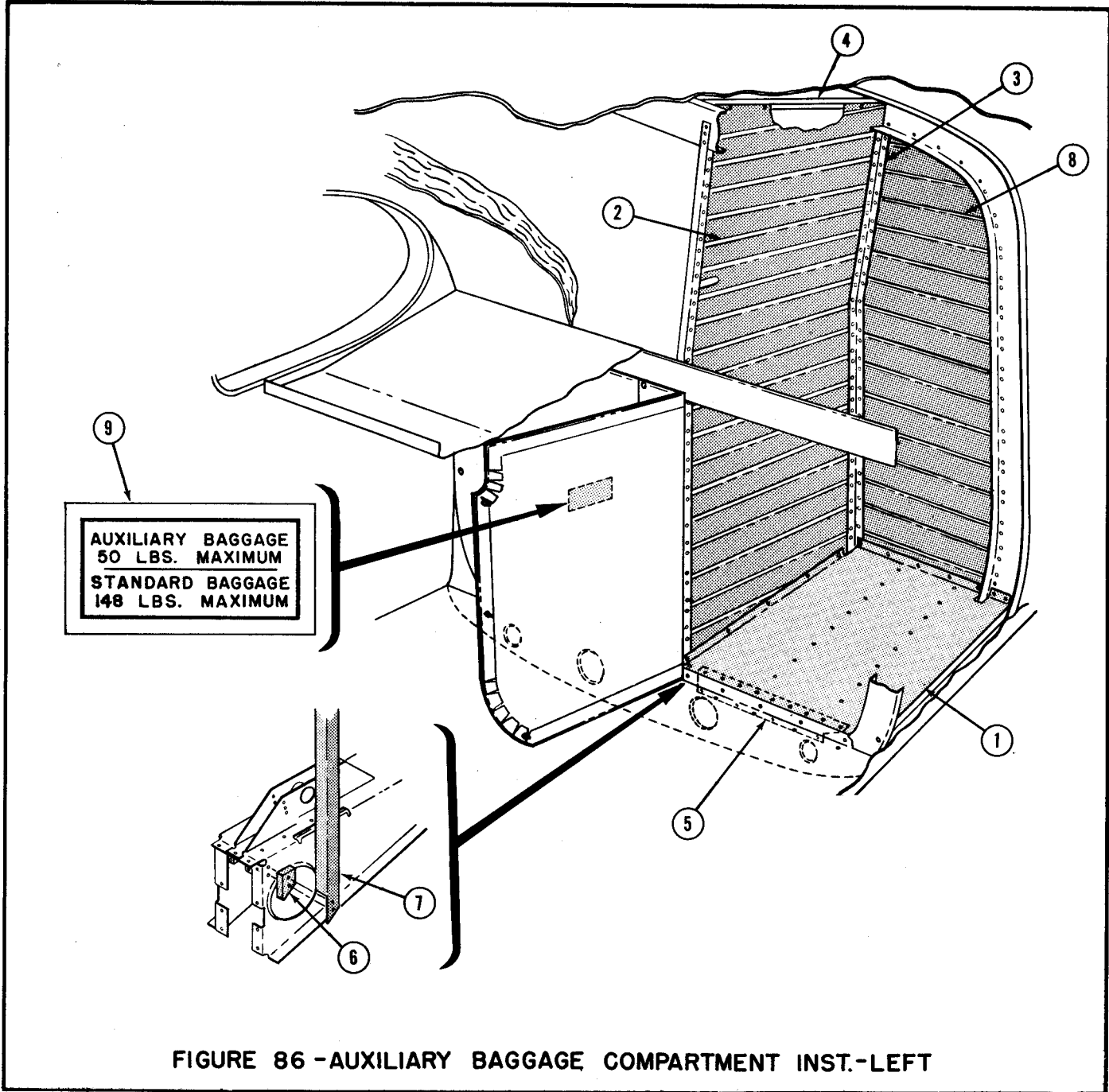


FIGURE 86 - AUXILIARY BAGGAGE COMPARTMENT INST.-LEFT

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	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



## ILLUSTRATED PARTS CATALOG

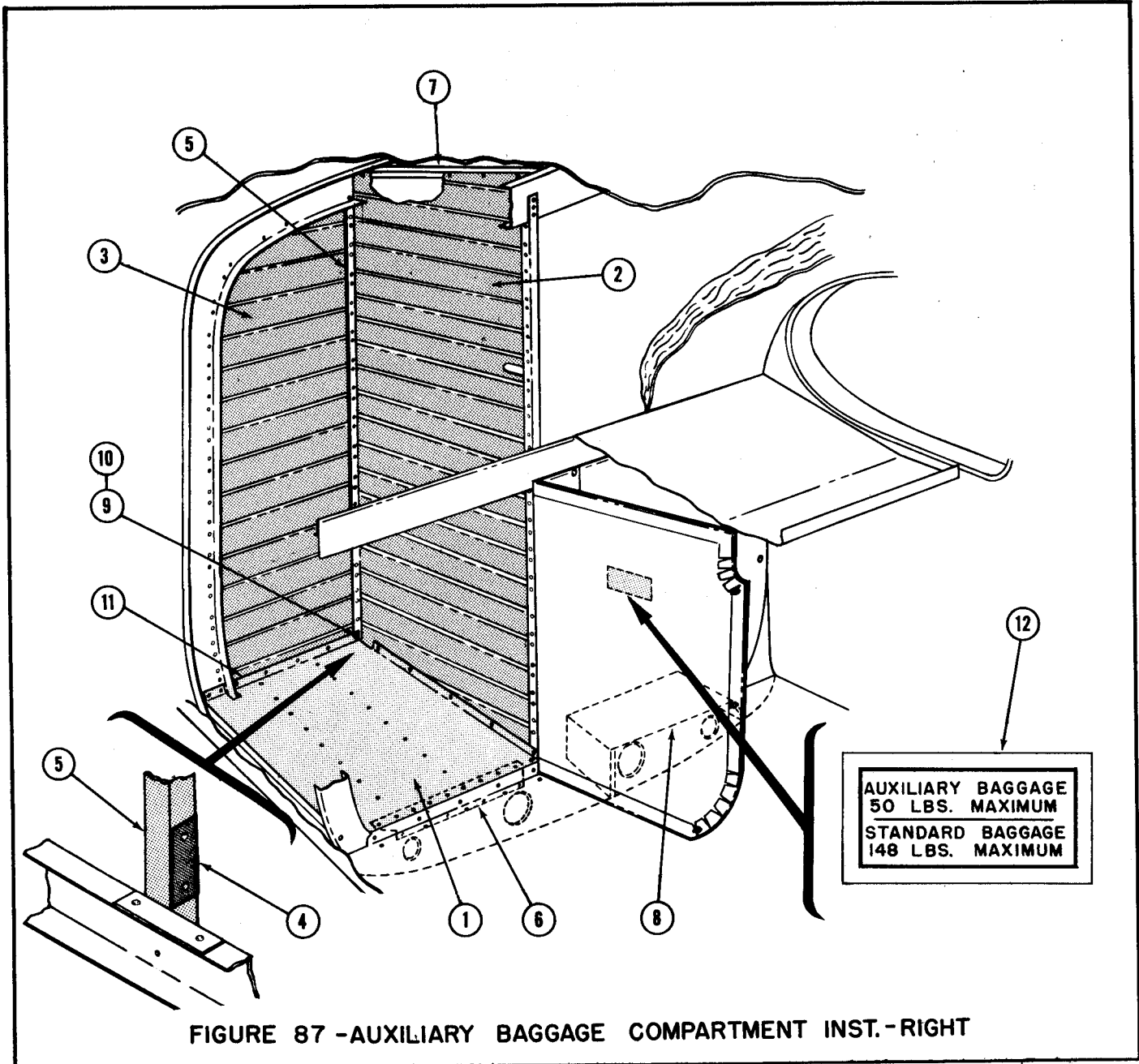


FIGURE 87 - AUXILIARY BAGGAGE COMPARTMENT INST. - RIGHT

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-589	Installation Kit - Auxiliary baggage compartment right (Cessna 0311857)	1	1
87-1	0311857-9	Floorboard Assembly - Auxiliary side	1	1
-2	0311857-5	Panel - Auxiliary baggage compartment side	1	1
-3	0311857-6	Panel - Auxiliary baggage compartment rear	1	1
-4	0311857-4	Rub Strip - Back support	1	1
-5	0311857-2	Angle - Side and back support	1	1
-6	0311857-10	Angle - Floorboard support	1	1
-7	0311807-18	Angle - Side support upper	1	1
-8	0311857-11	Shelf Assembly - Battery	1	1
-9	AN526-1032-4	Screw - (Attach angle)	2	2
-10	AN365-1032	Nut - (Attach angle)	2	2
-11	0311857-3	Angle - Baggage compartment rear	1	1
-12	0311807-3	Placard - Baggage	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

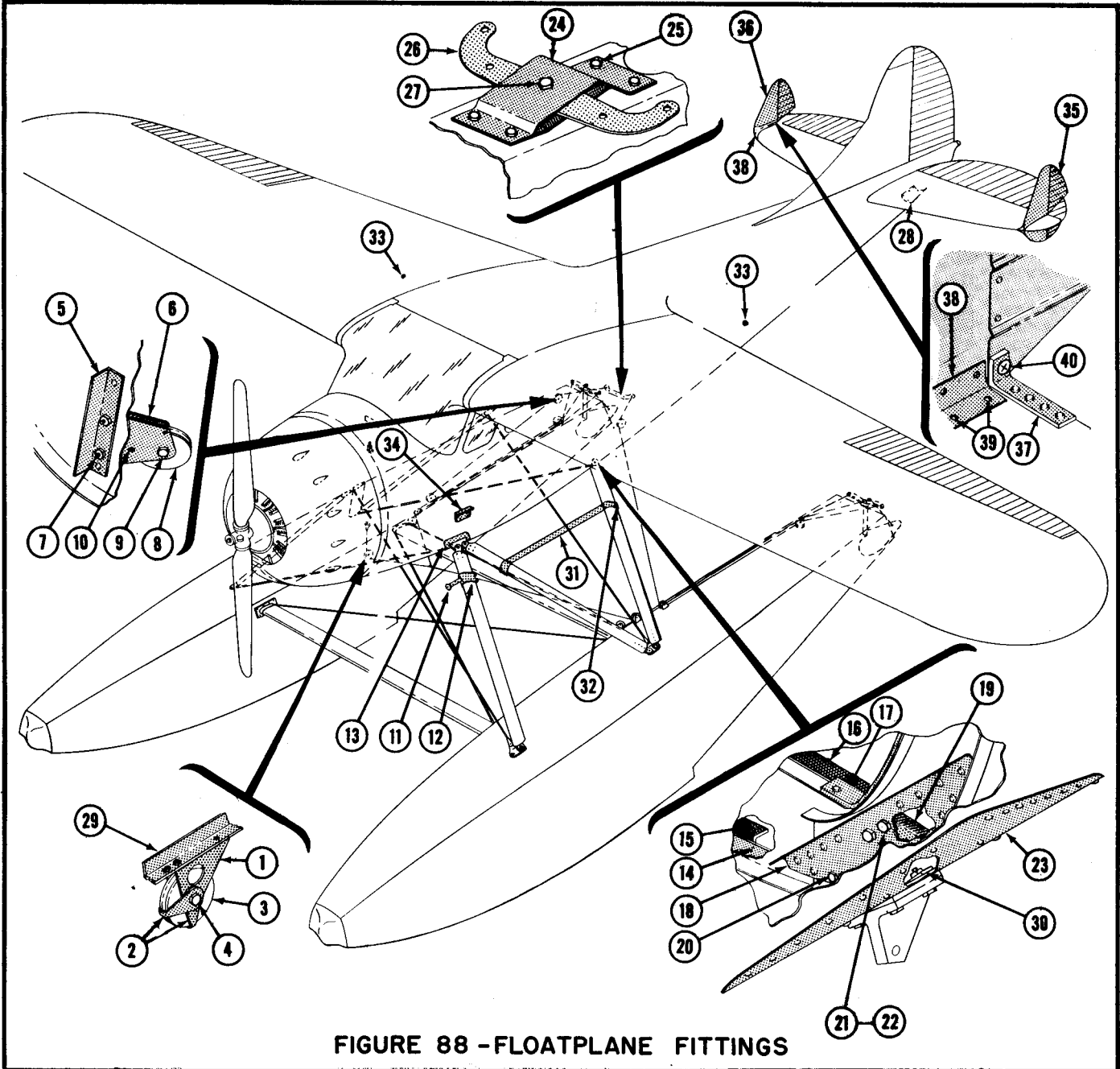


FIGURE 88 - FLOATPLANE FITTINGS

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	52-3-505	Installation Kit - Floatplane fittings (Cessna 0341102)	1	1
88-1	0411468	Bracket - Pulley	1	1
-2	0411421-4	Guard - Pulley	2	2
-3	A-130	Pulley - Formica	1	1
-4	AN3-6A	Bolt - (Attach pulley)	1	1
	AN365-1032	Nut	1	1
-5	0341102-13	Stiffener - Pulley bracket mount	2	2
-6	0341102-6	Bracket - Pulley right	1	1
	0341102-5	Bracket - Pulley left	1	1
-7	AN520-10R10	Screw - (Attach bracket)	4	4
	AN365-1032	Nut - (Attach bracket)	4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



## ILLUSTRATED PARTS CATALOG

FIGURE 88

OPTIONAL EQUIPMENT - FLOATPLANE FITTINGS (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
88-8	A130								
-9	AN3-7A								
	AN365-1032								
-10	AN380-3-2								
-11	0341102-17								
-12	AN380-2-3								
	AN960-10								
-13	0341102-16								
-14	0341102-14								
	0341102-24								
-15	0341102-18								
-16	0341102-1								
-17	0341102-2								
	0341102-25								
-18	0341120								
	0341120-1								
-19	0341121								
	0341121-1								
-20	AN3-5A								
	AN365-1032								
-21	AN5-5A								
-22	AN365-524								
-23	0341118								
-24	0341102-3								
-25	AN3-4A								
	AN366F-1032								
-26	0341102-4								
	AR4-1								
-27	AN4-10A								
	AN365-428								
-28	0341102-15								
-29	0341102-19								
-30	0341123								
	0341123-1								
	AN960-516L								
-31	0341123-26								
-32	AN526-1032R-8								
	AN365-1032								
-33	0422342								
-34	0300001-9								
	AN526-1032R10								
	AN365-1032								
	52-3-538								
-35	0331135-1								
-36	0331135-2								
-37	0331135-16								
	0331135-15								
	AN5-5A								
-38	0331135-13								
-39	PK76XZ-8-5								
-40	AN526-1032R8								
	52-3-574								
	0310207-22								
	0310207-23								
	0310207-24								
	0310207-26								
	0310207-28								
	0310207-29								
	0310207-30								
	0310207-31								
	0310207-32								
	0310207-33								
	0310207-34								
	0310207-35								
	0310207-38								
	0310207-39								
	0310207-40								
	0310207-41								
	0310207-42								
	0310207-43								
	0310207-44								
	0310207-45								

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE





## ILLUSTRATED PARTS CATALOG

FIGURE 89

## OPTIONAL EQUIPMENT - CAMERA PROVISION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	52-3-556	Installation Kit - Camera provision (Cessna 0310010)		
89-1	0310010-1	Line - Vacuum	1	1
-2	AN833-6D	Elbow - Vacuum line	2	2
-3	AN924-6D	Nut - (Attach elbow to floorboard)	2	2
-4	AN929-6	Cap - Vacuum line	2	2
-5	0310010-41	Line - Vacuum	1	1
-6	AN884-8-12	Hose - (Connect line)	1	1
-7	NAS397-12	Clamp - (Attach hose)	2	2
-8	0310010-2	Line - Vacuum	1	1
-9	AN931-6-10	Grommet - Vacuum line	3	3
-10	0310010-7	Doubler - Skin cutout	2	2
-11	0310010-8	Ring - Plexiglas retaining	2	2
-12	0310010-10	Plexiglas - Window	2	2
-13	PK76XZ-8-8	Screw - (Attach ring)	32	32
-14	NAS444-5	Nut - (Tinnerman A6195A-8Z-3)	16	16
-15	0310010-4	Bulkhead - Inboard left	1	1
	0310010-3	Bulkhead - Inboard right	1	1
-16	0310010-6	Bulkhead - Outboard left	1	1
	0310010-5	Bulkhead - Outboard right	1	1
-17	0310010-9	Plate + Cover	2	2
-18	PK76XZ-4-4	Screw - (Attach cover plate)	16	16
-19	0310010-43	Doubler - Skin cutout	2	2
-20	0311717	Plate + Bulkhead	4	4
-21	NAS444-5	Nut - (Tinnerman A6195A-8Z-3)	16	16
-22	0310010-12	Doubler - Skin cutout	1	1
-23	0310010-13	Ring - Skin cutout	1	1
-24	0310010-14	Plexiglas - Window	1	1
-25	0310010-37	Box Assembly - Floorboard skin opening	1	1
-26	PK76XZ-8-8	Screw - (Attach box and cover plate)	24	24
-27	0310010-11	Plate + Cover	1	1
-28	NAS444-5	Nut - (Tinnerman A6195A-8Z-3)	24	24
-29	0310010-30	Doubler - Skin	1	1
-30	0310010-31	Bulkhead - Camera provision	1	1
-31	0310010-32	Plate + Camera cutout cover	1	1
-32	0310010-33	Plate + Glass	1	1
-33	0310010-36	Bulkhead - Camera provision	1	1
-34	0310010-35	Clamp + Glass attachment	1	1
-35	0310010-40	Weatherstrip - Foam rubber	1	1
-36	0310010-42	Strip - Rub (sponge rubber No. 4635)	2	2
-37	PK76XZ-8-8	Screw - (Attach cover plate)	10	10
-38	NAS444-4	Nut - (Attach cover plate) (Tinnerman A6191-8Z-3)	10	10
-39	AN366F832	Nutplate	4	4
-40	AN526-8R12	Screw - (Attach cover plate)	4	4
-41	AN526-1032R16	Screw - (Attach clamp)	4	4
-42	AN365-1032	Nut - (Attach clamp)	4	4
-43	AN935-10	Washer - Lock	4	4
-44	AN350-1032	Wingnut - (Attach clamp)	4	4
-45	0310010-34	Plate - Skin cutout cover	1	1
-46	0310010-38	Seat Assembly - Camera	1	1
-47	AN366-F1032	Nutplate - (Attach seat)	4	4
-48	AN520-1032R10	Screw - (Attach seat)	4	4
-49	AN257-3-3875	Hinge - Baggage shelf	1	1
-50	PK76XZ-6-6	Screw - (Attach hinge)	12	12
-51	NAS446-3	Nut - (Attach hinge) (Tinnerman A1777-6Z-3)	12	12
-52	AN3021-2	Switch - Camera	1	1
-53	0310010-51	Plate - Stiffener	2	2
-54	0310010-53	Plate - Plug holder	1	1
-55	0310010-52	Decal - Camera switch	1	1
-56	PSM-25	Circuit Breaker - Camera (25 amps)	1	1
-57	XL3-13	Socket	1	1
-58	XL3-12	Plug	1	1
-59	AN526-632-8R	Screw - (Attach socket)	3	3
-60	AN365-632	Nut - (Attach socket)	3	3

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE





ILLUSTRATED PARTS CATALOG

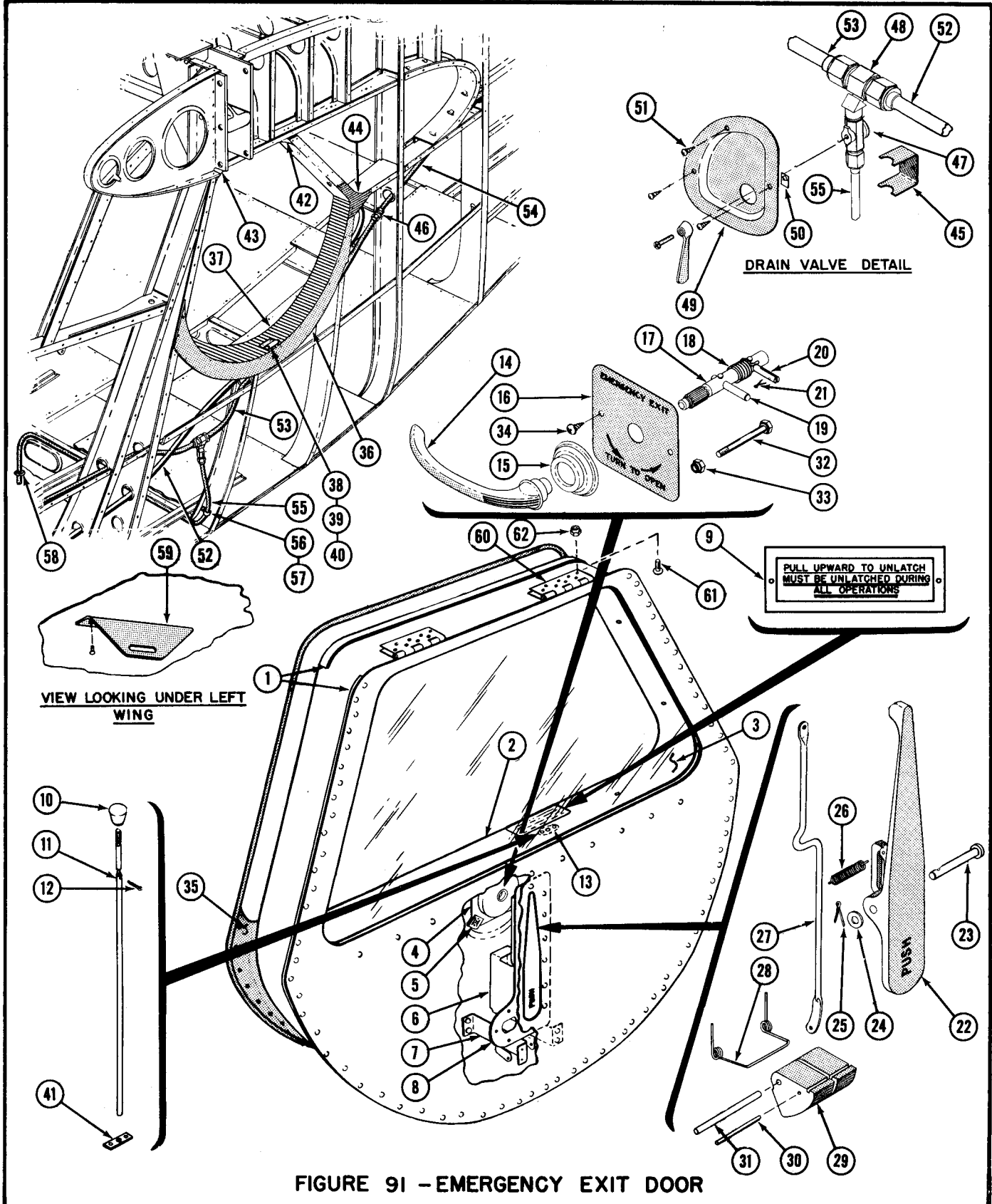
FIGURE 90

OPTIONAL EQUIPMENT - FLARE INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	52-3-502	Installation Kit - Flare (Cessna 0311003 and 0311679)						1	1
90-1	R-3M	Switch Assembly - Flare						1	1
-2	0311679-5	Angle						1	1
-3	0311679-3	Angle						1	1
-4	AN365-832	Nut						2	2
-5	AN515-8R5	Screw						2	2
-6	PK76XZ-4-6	Screw						6	6
-7	NAS395-1-3	Nut - (Tinnerman A6187-4Z-3)						6	6
-8	PSM-2	Circuit Breaker - Flare						1	1
-9	0300005-119	Wire						1	1
-10	0300005-78	Wire						1	1
-11	0300005-79	Wire						1	1
-12	0300005-80	Wire						1	1
-13	1-1/2 PF11	Flare & Bracket Assembly						1	1
-14	0311003-3	Plate						1	1
-15	0311003-5	Brace						1	1
-16	0311003-7	Brace						1	1
-17	A3047A-4	Clamp - (Tinnerman)						2	2
-18	3/8 Inch	Tube - Tranflex (Approx. 4" long)						1	1
-19	#6	Tube - Tranflex (Approx. 3/4" long)						3	3
-20	PK76XZ-8-6	Screw						2	2
-21	AN526-8R-16	Screw						4	4
-22	AN960-8	Washer						4	4
-23	AN365-832	Nut						4	4
-24	AN526-632R-8	Screw						18	18
-25	AN365-632	Nut						18	18

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE





ILLUSTRATED PARTS CATALOG

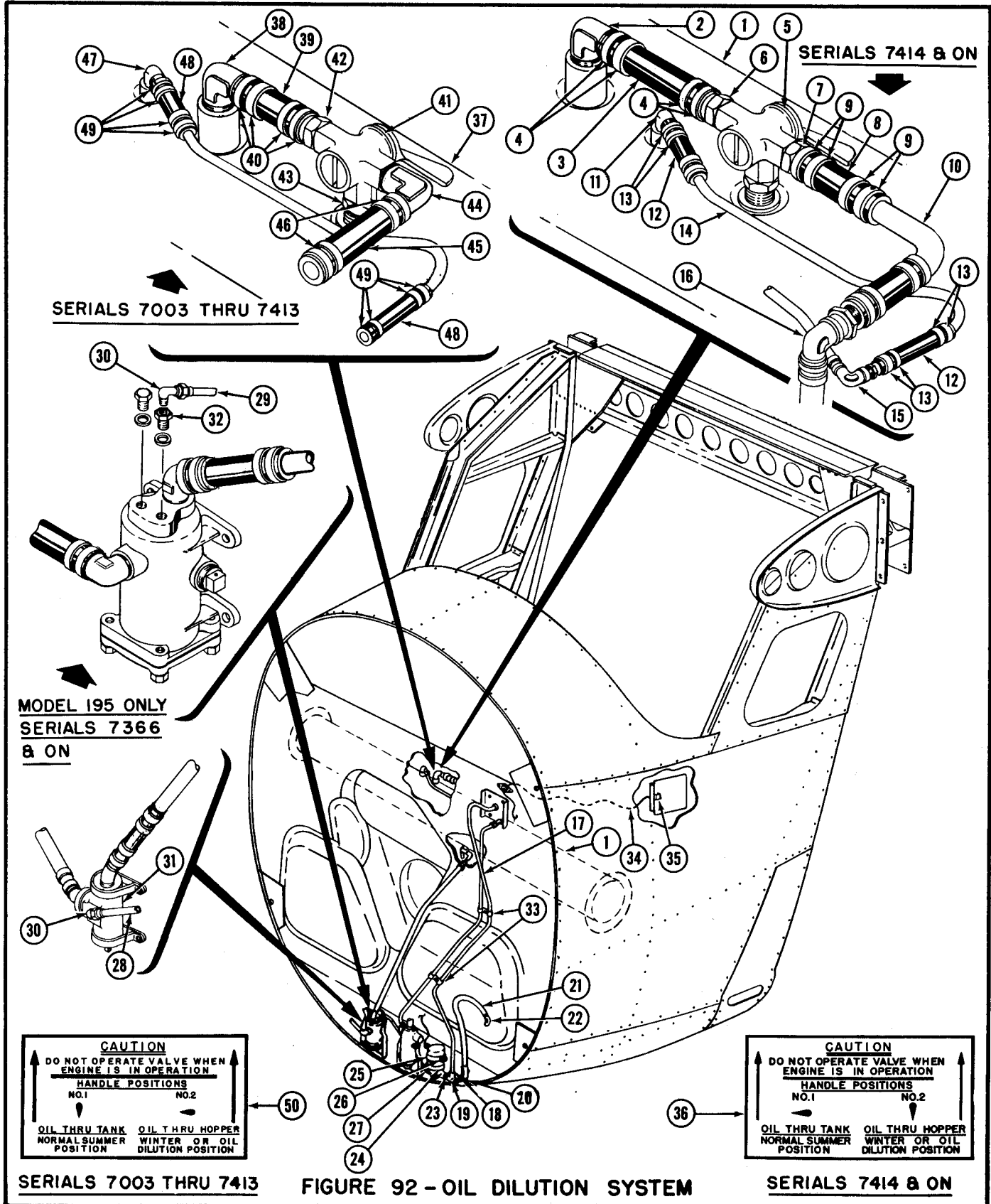
FIGURE 91

OPTIONAL EQUIPMENT - EMERGENCY EXIT DOOR

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
			52-3-542	Installation Kit - Emergency exit door (Cessna 0311404)					
	0311404-50	Door Assembly - Emergency exit						1	1
91-1	0311404-22	Weatherstrip - Emergency exit						1	1
-2	0311404-19	Pan - Window						1	1
-3	0311404-20	Window - Emergency exit						1	1
-4	0413195	Plate Assembly - Emergency exit						1	1
-5	NAS396-1A3	Nut - (Tinnerman A1932-6Z-3)						4	4
-6	0311435	Bracket - Emergency exit						1	1
-7	0311404-16	Support - Emergency exit						1	1
-8	0311280	Housing - Latch						1	1
-9	0311404-38	Placard - Base plate						1	1
-10	0411092	Knob - Door lock						1	1
-11	0311404-35	Rod - Door lock						1	1
-12	AN380-2-2	Pin - Cotter						1	1
-13	Al663-.017-1	Catch - Door lock						1	1
-14	0511183	Handle - Door inside (Serials thru 16083)						1	1
-15	0511081	Escutcheon - Door (Serials thru 16083)						1	1
	0511189	Handle (Serials 16084 & on)						1	
	0511189-1	Retaining Clip (Serials 16084 & on)						1	
	051189-2	Escutcheon (Serials 16084 & on)						1	
	0413317-1	Spring (Between door and upholstery)(serials 16084 & on)						1	
-16	0311404-27	Plate - Emergency exit						1	1
-17	0311404-18	Shaft - Door handle						1	1
-18	0311404-35	Spring - Handle return						1	1
-19	0311404-17	Arm - Shaft						1	1
-20	0311404-32	Arm - Shaft						1	1
-21	AN380-4-2	Pin - Cotter						1	1
-22	0311434	Handle - Door outside						1	1
-23	AN393-33	Pin - Clevis						1	1
-24	AN960-10L	Washer						1	1
-25	AN380-2-2	Pin - Cotter						1	1
-26	0311433	Spring - Handle return						1	1
-27	0311404-39	Rod - Pawl actuating						1	1
-28	0311284	Spring - Pawl						1	1
-29	0311281-3	Pawl						1	1
-30	NAS41-2-1.00	Pin - Pawl						1	1
-31	NAS41-3-1.562	Pin - Pawl						1	1
-32	AN3-21A	Bolt - Handle stop						1	1
-33	AN365-1032	Nut						1	1
-34	PK76XZ-4-4	Screw - (Attach plate)						2	2
-35	0311190	Upholstery Kit - Emergency door						1	1
-36	0311404-3	Doublers - Emergency exit						1	1
-37	0311404-4	Channel - Emergency exit						1	1
-38	0311319	Plate - Strike						1	1
-39	AN366F832	Nutplate - (Attach strike plate)						2	2
-40	AN526-832R6	Screw - (Attach strike plate)						2	2
-41	0311404-36	Doublers - Pawl cutout						1	1
-42	0311404-23	Fillet - Emergency exit upper rear						1	1
-43	0311404-24	Fillet - Emergency exit upper front						1	1
-44	0311404-26	Gusset - Emergency exit center rear						1	1
-45	0311404-31	Bracket - Support fuel valve						1	1
-46	AN816-4D	Union - Fuel line						1	1
-47	0311826	Valve - Fuel drain						1	1
-48	0311752-3	Fitting - Fuel drain valve						1	1
-49	0311404-28	Pan - Fuel drain valve						1	1
-50	NAS395-14-3	Nut - (Attach pan)						3	3
-51	PK76XZ-8-6	Screw - (Attach pan)						3	3
-52	0300106-35	Line - Fuel						1	1
-53	0300106-41	Line - Fuel						1	1
-54	0300106-43	Line - Fuel						1	1
-55	0300106-39	Line - Drain						1	1
-56	NAS435-D4	Clamp - Drain line						2	2
-57	PK76XZ-8-8	Screw - (Attach clamp)						2	2
-58	AN941-4S-12	Grommet - Drain line						1	1
-59	0311404-37	Bracket - Wing door support						1	1
-60	0311404-59	Hinge - Emergency door						2	2
-61	AN526-1032	Screw - (Attach hinge)						4	4
-62	AN365-1032	Nut - (Attach hinge)						4	4

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE



SERIALS 7003 THRU 7413

SERIALS 7414 & ON

MODEL 195 ONLY  
SERIALS 7366  
& ON

**CAUTION**  
DO NOT OPERATE VALVE WHEN  
ENGINE IS IN OPERATION  
HANDLE POSITIONS  
NO.1 NO.2  
OIL THRU TANK OIL THRU HOPPER  
NORMAL SUMMER WINTER OR OIL  
POSITION DILUTION POSITION

**CAUTION**  
DO NOT OPERATE VALVE WHEN  
ENGINE IS IN OPERATION  
HANDLE POSITIONS  
NO.1 NO.2  
OIL THRU TANK OIL THRU HOPPER  
NORMAL SUMMER WINTER OR OIL  
POSITION DILUTION POSITION

SERIALS 7003 THRU 7413

FIGURE 92 - OIL DILUTION SYSTEM

SERIALS 7414 & ON



ILLUSTRATED PARTS CATALOG

FIGURE 92 OPTIONAL EQUIPMENT - OIL DILUTION SYSTEM

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
		1 2 3 4 5 6		
	52-3-541	Installation Kit - Oil dilution system (Cessna 0350277)		
92-1	0350277-17	Tank Assembly - Oil		
-2	AN842-12D	Elbow - Tank top		
-3	AN884-12-16	Hose - Tank top		
-4	NAS397-18	Clamp - (Attach hose) (Tinnerman A3122-18-59)		
-5	703-13-3/4D	Valve - Oil shut-off		
	710-13-3/4D	Valve - Oil shut off Remco (alternate)		
-6	AN840-12D	Adapter - Valve to hose		
-7	AN911-6D	Nipple - Valve to hose		
-8	AN884-12-12	Hose - Oil line		
-9	NAS397-18	Clamp - (Attach hose) (Tinnerman A3122-18-59)		
-10	0300106-72	Line - (Valve to firewall)		
-11	AN842-6D	Elbow - Oil tank top		
-12	S-51-6-13	Hose - Oil tank top		
-13	NAS397-12	Clamp		
-14	0300106-82	Line - Oil tank to firewall		
-15	AN838-6D	Elbow - Firewall		
-16	AN848-12D	Elbow - Firewall		
-17	0300106-65	Line - Fuel		
-18	AN816-2D	Nipple - Fuel line		
-19	AN917-1D	Tee - Fuel line attachment		
-20	AN822-4D	Elbow - Fuel line		
-21	AN6271-4-14	Hose Assembly - Valve to carburetor (195 only)		
	0350277-14	Tube - Vinylite (3/4 x .035) (195 only)		
-22	AN823-4D	Elbow - Carburetor (195 only)		
-23	AN911-1D	Nipple - Tee to valve		
-24	AN4078-1	Valve - Solenoid		
-25	AN742-D32	Clamp - (Attach valve) (Tinnerman A2980A-32)		
-26	AN3-5A	Bolt - (Attach valve)		
	AN365-1032	Nut - (Attach valve)		
	AN960-10L	Washer - (Attach valve)		
-27	AN823-4D	Elbow - Valve to line		
-28	0300106-57	Line - Valve to tee (190 serial 7003 & on; 195 serial 7003 thru 7365)		
-29	0300106-66	Line - Valve to strainer (195 serial 7366 & on)		
-30	AN822-4D	Elbow - Oil drain tee		
-31	0350277-7	Tee - Oil drain (190 serial 7003 & on; 195 serial 7003 thru 7365)		
-32	0350277-15	Plug - Oil strainer (195 serial 7366 & on)		
-33	755-2-2-6	Clamp - Fuel line support		
	0300005-105	Wire Assembly - (Circuit breaker to switch)		
-34	0300005-106	Wire Assembly - (Switch to valve)		
-35	AN3021-8	Switch - Oil dilution		
-36	0350277-18	Placard - Oil dilution		
	1/8 x 5/16	Rivet - (Attach placard)		
		NOTE: The following parts are not part of kit 52-3-541. They were used on airplanes serial number 7003 thru 7413 and are listed for spares requirements only.		
-37	0350277-5	Tank Assembly - Oil		
-38	AN842-12D	Elbow - Tank top		
-39	AN884-12-12	Hose - Tank top		
-40	NAS397-18	Clamp - (Attach hose) (Tinnerman A3122-18-59)		
-41	703-13-12D	Valve - Oil shut off (when exhausted use 703-13-3/4D)		
-42	AN840-12D	Adapter - Valve to hose		
-43	AN911-6D	Nipple - Valve to tank		
-44	AN842-12D	Elbow - Valve to hose		
-45	AN884-12-17	Hose - Valve to firewall		
-46	NAS397-18	Clamp - (Attach hose) (Tinnerman A3122-18-59)		
-47	AN842-6D	Elbow - Oil tank top		
-48	AN884-6-13	Hose - Oil tank top		
-49	NAS397-12	Clamp - (Attach hose) (Tinnerman A3122-12-59)		
-50	0350277-9	Placard - Oil dilution		
	0340304	Placard - Oil dilution (190 only)		

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

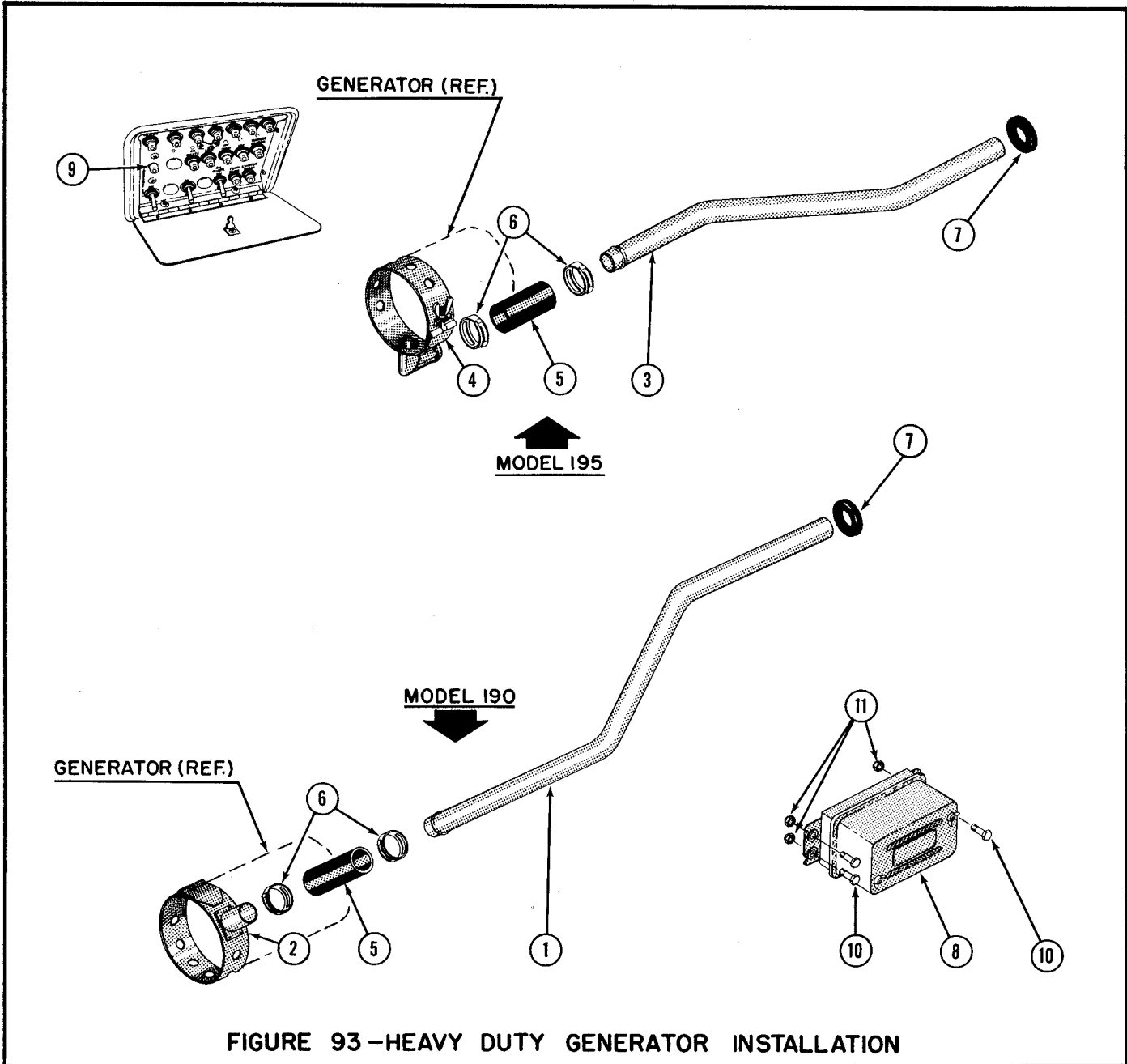


FIGURE 93 - HEAVY DUTY GENERATOR INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS	
			190	195
	52-3-580	Installation Kit - 40 Amp Generator (190) (Cessna 0350280)	1	
	52-3-549	Installation Kit - Heavy duty generator (195) (Cessna 0350281)		1
93-1	0300106-50	Tube - Generator blast (190)	1	
-2	0350283	Strap Assembly - Cover (190)	1	
-3	0300106-58	Tube - Generator blast (195)		1
-4	0350283-3	Strap Assembly - Cover (195)		1
-5	AN884-16-12	Hose - Blast tube	1	1
-6	NAS397-22	Clamp - (Attach hose)	2	2
-7	AN931-16-22	Grommet - Blast tube	1	1
-8	0311825-1	Regulator - Voltage (Leece-Neville 3056-RB6)	1	1
-9	PM-40	Circuit Breaker - (40 amps)	1	1
-10	AN4-6A	Bolt - (Attach voltage regulator)	3	3
-11	AN365-428	Nut - (Attach voltage regulator)	3	3

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

## ILLUSTRATED PARTS CATALOG

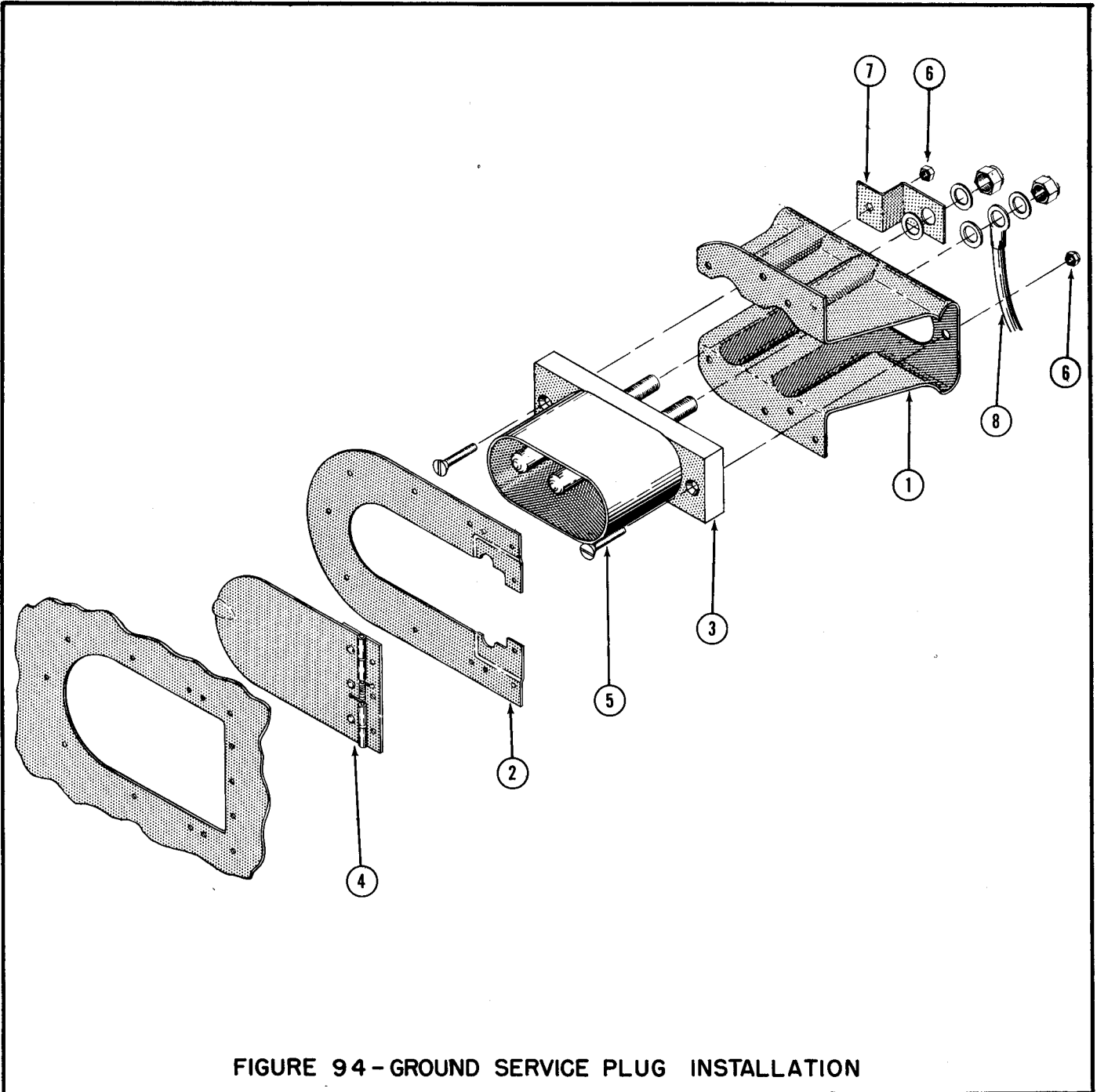


FIGURE 94 - GROUND SERVICE PLUG INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
			AK9052-2	Installation Kit - Ground service plug (0312155 Ref)					
94-1	0312155-3	Bracket - Receptacle mounting						1	1
-2	0312155-6	Doubler - Bracket mounting						1	1
-3	AN2552-3A	Receptacle - Ground service plug						1	1
-4	0312155-4	Door Assembly - Receptacle						1	1
-5	AN510-10R-16	Screw - (Attach receptacle)						2	2
-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

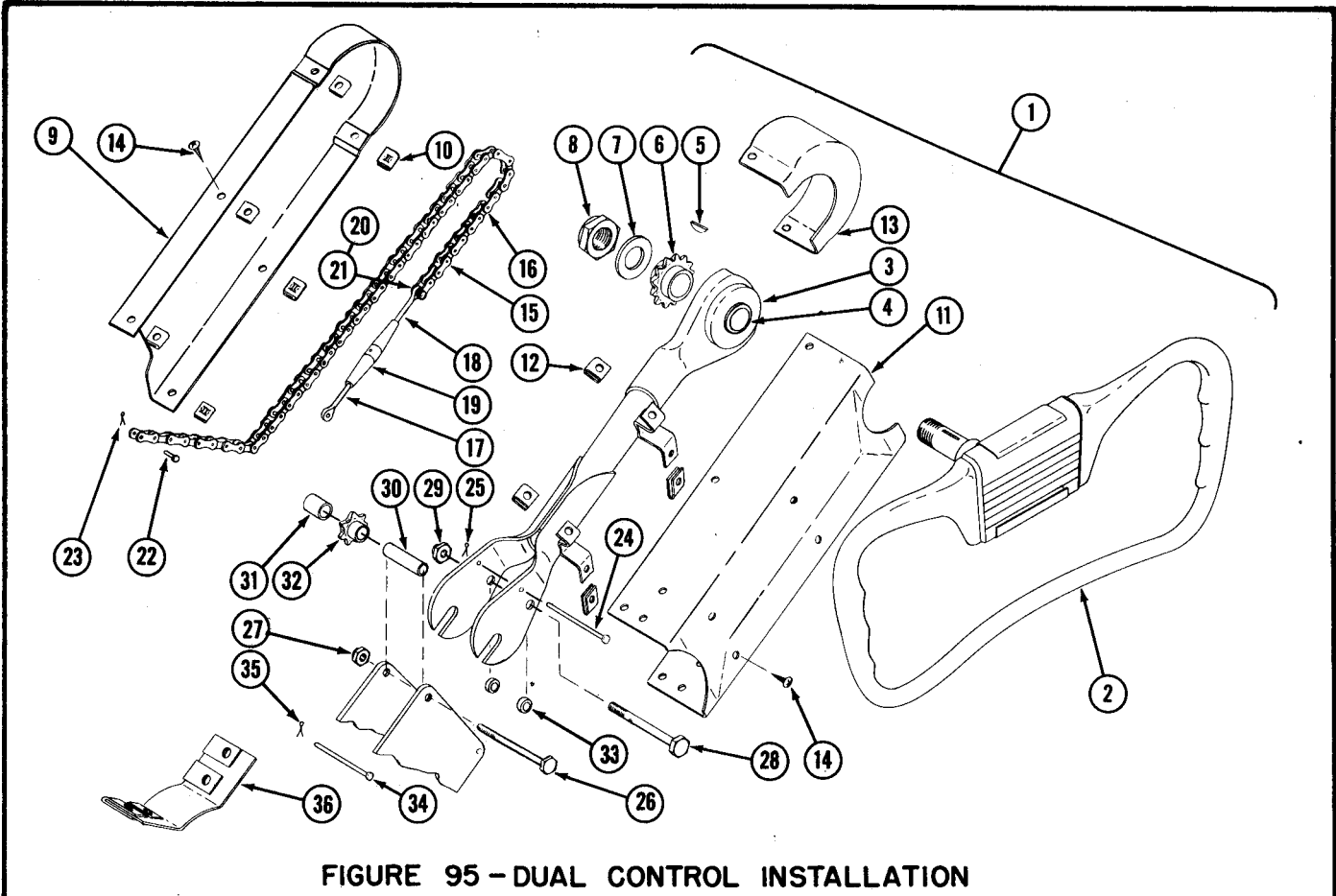


FIGURE 95 - DUAL CONTROL INSTALLATION

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS*	
			190	195
95-	52-3-506	Installation Kit - Dual control (190)(Cessna 0310365)	1	
	52-3-507	Installation Kit - Dual control (195)(Cessna 0310365)(serials 7005 thru 16083)		1
	AK9054-2	Installation Kit - Dual control (A195)(Cessna 0310365)(serials 16084 & on)		1
-1	0310365-2	Arm Assembly - Dual control (190)	1	
	0310365-3	Arm Assembly - Dual Control (195)(serials 7005 thru 16083)		1
	0310365-5	Arm Assembly - Dual control (A195)(serials 16084 & on)		1
-2	0310340	Wheel - Control (190)	1	
	0310340-3	Wheel - Control (195)(serials 7005 thru 16083)		1
	0310456	Wheel - Control (A195)(serial 16084 & on)		1
-3	0310370	Arm - Dual control	1	1
-4	K 12A	Bearing - Pafnir	1	1
-5	AN280-304	Key - Sprocket retaining	1	1
-6	0310364	Sprocket - Control wheel chain	1	1
-7	0310359-5	Washer - Control wheel	1	1
-8	AN364-1216	Nut-(Attach wheel)	1	1
-9	0310423	Cover Assembly - Control arm front	1	1
-10	NAS395-14-3	Nut (Attach cover)(Tinnerman A1274 8Z 3)	6	6
-11	0310377	Cover - Control arm rear	1	1
-12	NAS395-14-3	Nut - (Attach cover)(Tinnerman A1274 8Z 3)	4	4
-13	0310139	Cap - Control arm cover	1	1
-14	PK76XZ-8-6	Screw - (Attach cover)	10	10
-15	0310150-2	Chain Assembly - Dual control	1	1
-16	0310150-1	Chain - Dual control	1	1
-17	NAS288-35-LH	Terminal - Turnbuckle	1	1
-18	NAS288-35-RH	Terminal - Turnbuckle	1	1
-19	AN155-32S	Barrel - Turnbuckle	1	1
-20	AN392-13	Pin - Clevis	1	1
-21	AN380-2-2	Pin - Cotter	1	1
-22	AN392-13	Pin - Clevis	1	1
-23	AN380-2-2	Pin - Cotter	1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

ILLUSTRATED PARTS CATALOG

FIGURE 95

OPTIONAL EQUIPMENT - DUAL CONTROL INSTALLATION (CONTINUED)

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
95-24	AN392-71			Pin - Clevis				1	1
-25	AN380-2-2			Pin - Cotter				1	1
-26	AN3-21A			Bolt - (Attach dual control arm)				1	1
-27	AN365-1032			Nut - (Attach dual control arm)				1	1
-28	AN6-26A			Bolt - (Attach dual control arm)				1	1
-29	AN365-624			Nut - (Attach dual control arm)				1	1
-30	O310140			Bushing - Dual control arm				1	1
-31	O310154			Spacer - Dual control arm				1	1
-32	O310255			Idler - Dual control arm				1	1
-33	NAS43C-6-8			Spacer - (Attach dual control arm)				2	2
-34	AN392-47			Pin - Clevis				1	1
-35	AN380-2-2			Pin - Cotter				1	1
-36	O310449			Cover - Control arm gap				1	1

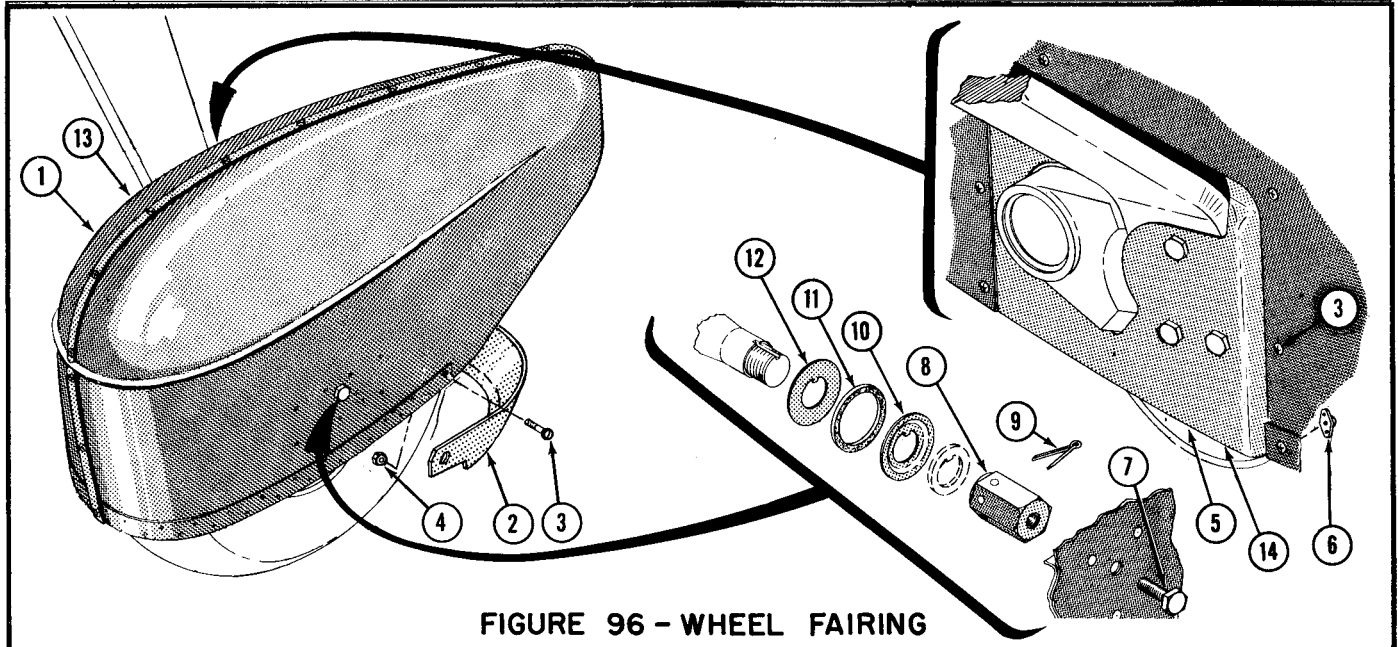


FIGURE 96 - WHEEL FAIRING

FIGURE AND REF. NO.	PART NUMBER	PART NAME						UNITS REQUIRED ON MODELS	
		1	2	3	4	5	6	190	195
	52-3-512			Installation Kit - Wheel fairing (Cessna 0341143)				1	1
96-1	0341143-15			Fairing Assembly - Left wheel				1	1
-2	0441143-11			Scraper - Mud				1	1
-3	AN526-1032R8			Screw				10	10
-4	AN365-1032			Nut				3	3
-5	0341143-20			Plate - Mounting				1	1
-6	AN366F1032			Nutplate				7	7
-7	AN6-6A			Bolt - (Attach fairing)				1	1
-8	O341130			Nut - Axle				1	1
-9	AN340-4-6			Pin - Cotter				1	1
-10	O341143-13			Washer - Axle				1	1
-11	O341143-14			Seal - Axle				1	1
-12	O341143-12			Washer - Axle				1	1
-13	0341143-16			Fairing Assembly - Right wheel				1	1
-2	0441143-11			Scraper - Mud				1	1
-3	AN526-1032R8			Screw				10	10
-4	AN365-1032			Nut				3	3
-14	0341143-21			Plate - Mounting				1	1
-6	AN366F1032			Nutplate				7	7
-7	AN6-6A			Bolt - (Attach fairing)				1	1
-8	O341130			Nut - Axle				1	1
-9	AN340-4-6			Pin - Cotter				1	1
-10	O341143-13			Washer - Axle				1	1
-11	O341143-14			Seal - Axle				1	1
-12	O341143-12			Washer - Axle				1	1

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

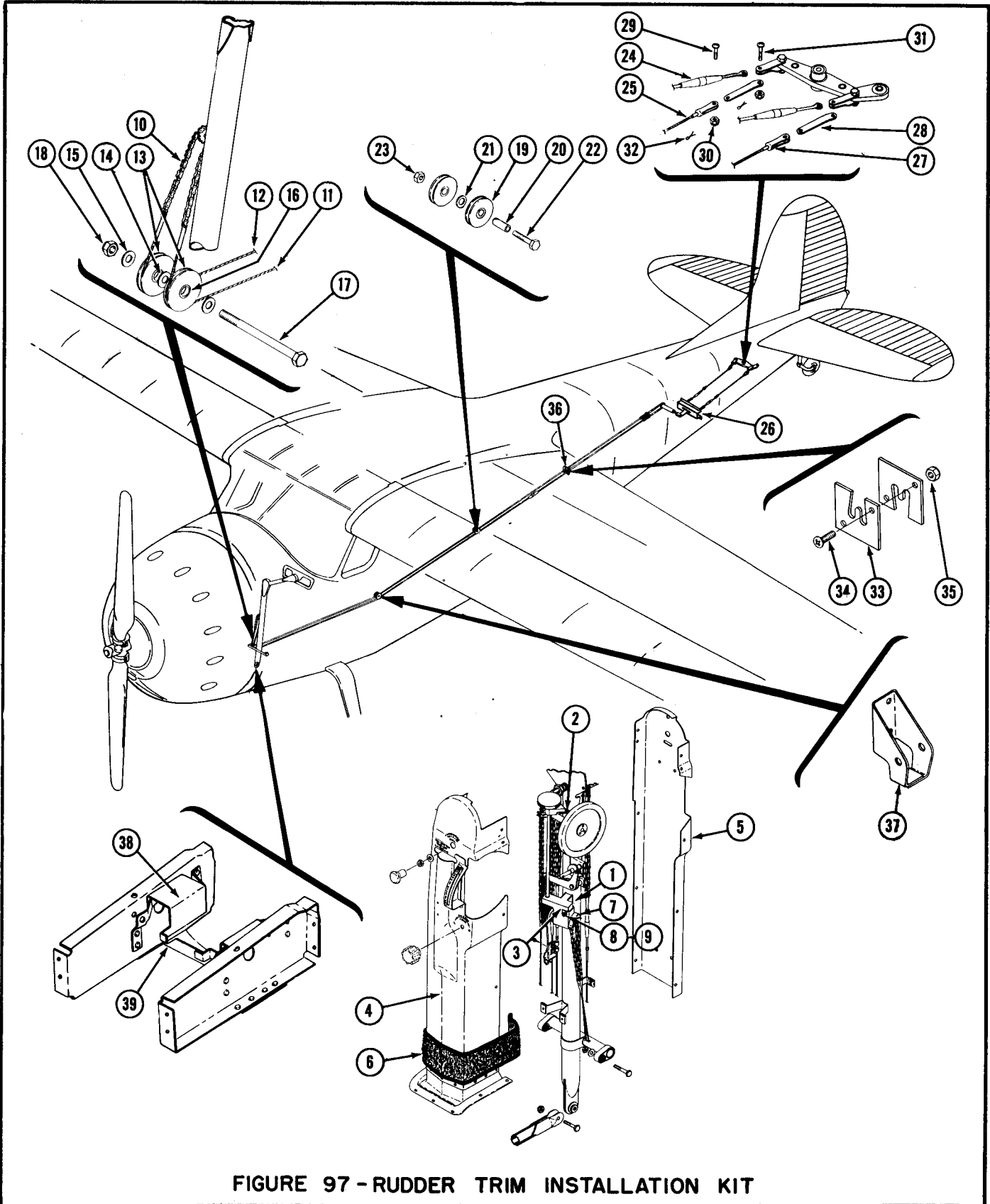


FIGURE 97 - RUDDER TRIM INSTALLATION KIT





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	
		1	2	3	4	5	6	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 airplanes serials 7003 thru 7393 order kit 52-3-578.									

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

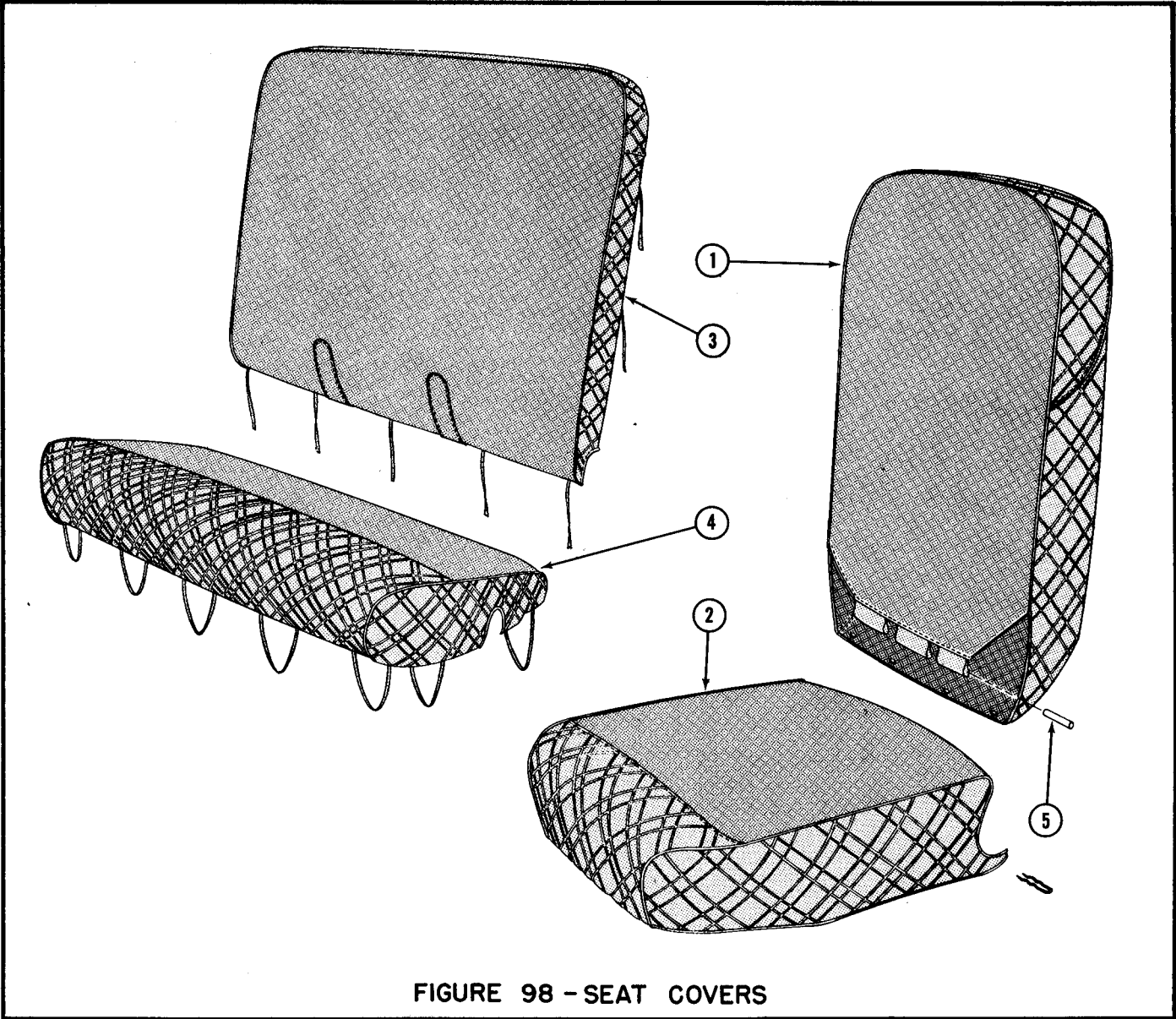


FIGURE 98 - SEAT COVERS

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

ILLUSTRATED PARTS CATALOG

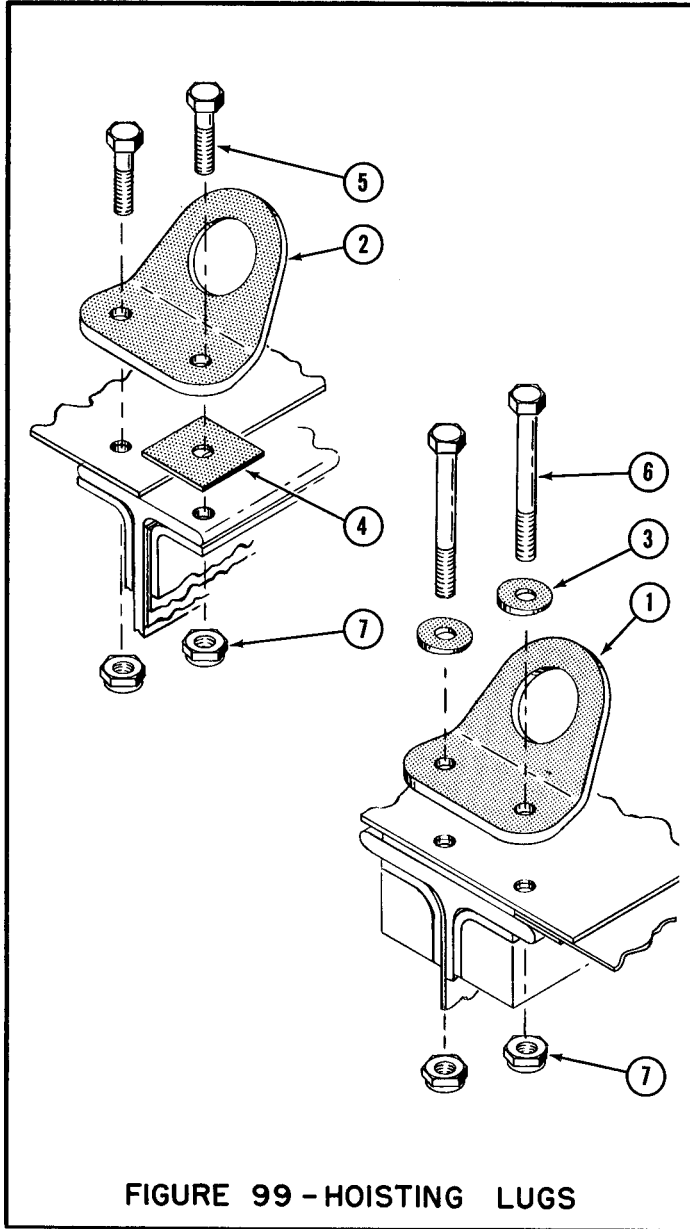


FIGURE 99 - HOISTING LUGS

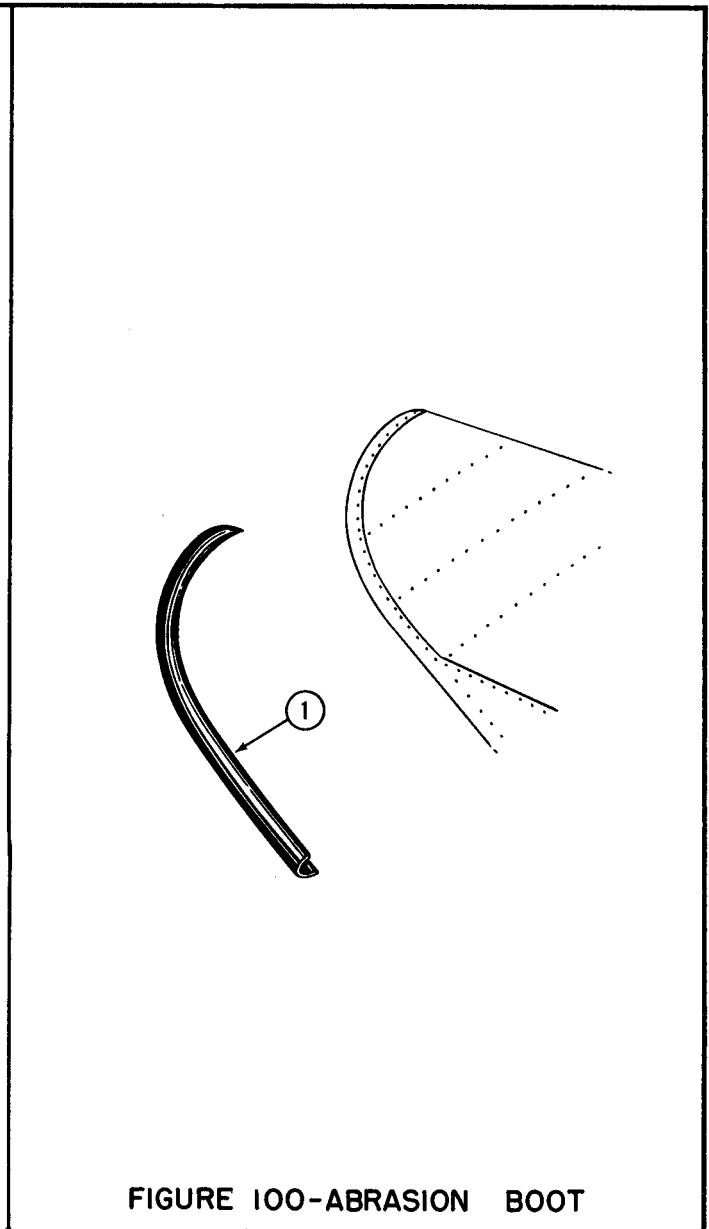


FIGURE 100 - ABRASION BOOT

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

FRONT CABIN VENTILATOR ON CO-PILOT'S SIDE

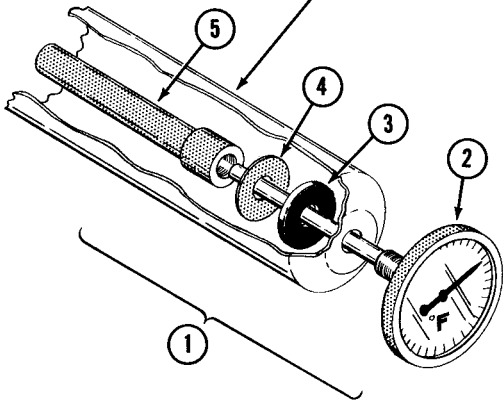


FIGURE 101-OUTSIDE AIR TEMPERATURE GAGE

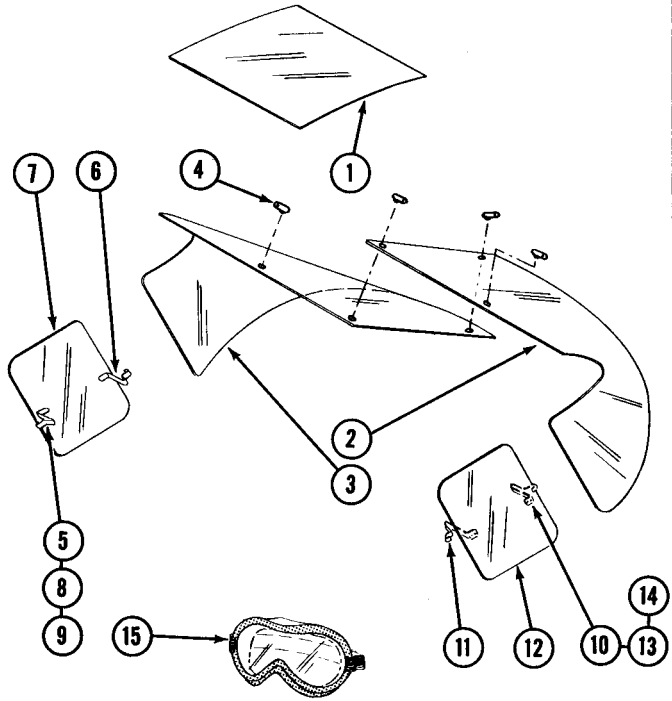


FIGURE 102-BLIND FLIGHT KIT

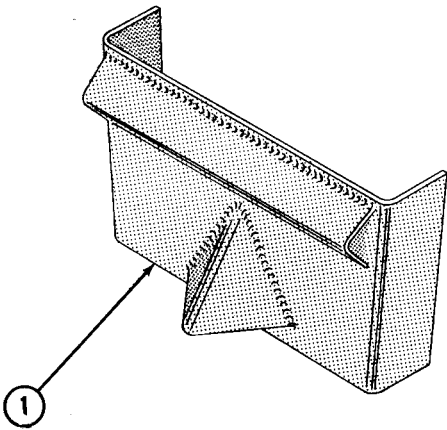


FIGURE 103-UNIVERSAL JACK POINT

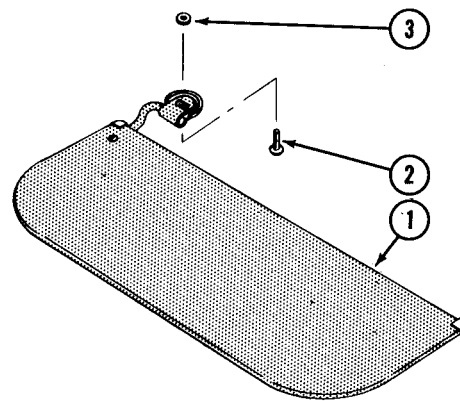


FIGURE 104-SUN VISOR



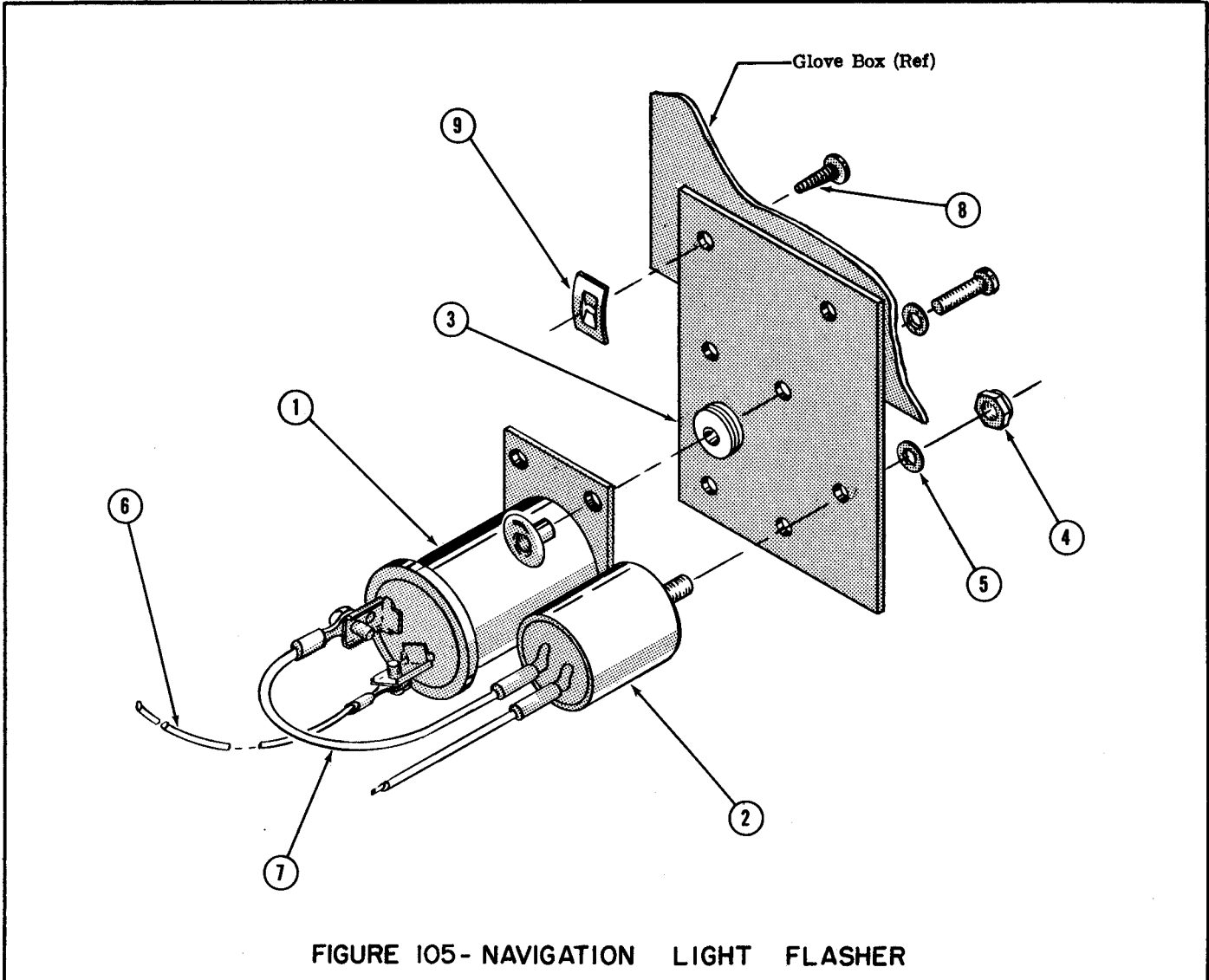


FIGURE 105- NAVIGATION LIGHT FLASHER

FIGURE AND REF. NO.	PART NUMBER	PART NAME	UNITS REQUIRED ON MODELS							
			190	195						
			1	2	3	4	5	6		
105-	0511024	Installation KIt - Navigation light flasher	1	1						
	0511025-2	Flasher Assembly - Navigation light	1	1						
-1	0511025	Flasher - Navigation light (Narco FL-1)	1	1						
-2	0511025-1	Filter - Navigation light	1	1						
-3	0511025-3	Plate - Flasher	1	1						
-4	AN340-B-8	Nut - (Attach filter)	1	1						
-5	AN936A8	Washer - (Attach filter)	1	1						
-6	BB-2	Connector - (Sta-Kon)	1	1						
-7	RA863	Terminal - (Sta Kon)	1	1						
-8	PK76XZ-8-8	Screw - (Attach flasher)	2	2						
-9	NAS446-4	Nut - (Tinnerman A1778-8Z3)	2	2						

ORDER BY PART NUMBER AND NAME

SERIAL NUMBER AND COLOR IF APPLICABLE

## **NUMERICAL INDEX**

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0300001-3	20-102	0300005-72	78-72	0300005-145	78-145	0300106-7	66-23
-4	20-101	-78	90-10			-8	66-24
-5	39-73	-79	90-11	-148	78-148	-9	66-25
-7	2-43	-80	90-12	-149	78-149	-10	66-26
	8-39	-90	78-90	-150	78-150	-11	66-27
-8	2-45	-94	78-94	-151	78-151	-12	66-28
	8-41	-97	94-8	-152	78-152	-13	66-43
-9	88-34		78-97	-153	78-153	-14	66-34
0300005-1	78-1	-98	78-98	-154	78-154	-15	66-54
-2	64-8	-101	78-101	-155	78-155	-16	66-69
	78-2		64-2	-156	78-156	-17	66-65
-3	78-3	-102	78-102	-158	84-13	-18	66-64
-7	78-7	-103	78-103			-19	58-27
-8	78-8		64-7		78-158	-20	67-12
-12	78-12	-104	78-104	-160	78-159	-22	69-5
-14	78-14		64-3	-160	83-5	-22	69A-5
		-105	92-33		78-160	-23	69-4
-15	78-15	-106	92-34	-161	83-6	-23	69A-4
-16	78-16	-108	78-108		78-161	-24	69-9
			45-12	-162	83-7	-25	69-10
-17	78-17	-109	45-13		78-162	-26	69-12
			78-109	-163	83-8	-28	69-17
-19	78-19	-110	78-110		78-163	-30	50-23
-21	78-21	-111	78-111	-166	78-166	-31	50-20
-22	78-22	-112	78-112	-167	78-167	-33	49-54
-23	78-23	-113	78-113	-168	78-168	-35	91-52
		-114	78-114			-36	36-9
-24	78-24	-115	78-115	-189	78-189	-37	81-20
		-116	64-4	-190	78-190	-39	91-55
-26	78-26		78-116	-191	78-191	-41	91-53
-27	78-27	-117	78-117	0300006-3	102-10	-43	91-54
-30	78-30	-118	78-118	-4	102-5	-50	93-1
-32	78-32	-119	90-9	-5	102-11		58-63
-35	78-35		78-119	-6	102-6	-52	66-55
-37	78-37	-120	78-120	-7	102-4	-53	67-23
-39	78-39	-121	78-121	-8	102-9		67-24
-41	78-41	-122	78-122	-9	102-7	-56	67-25
-43	78-43	-123	78-123		102-12	-57	92-28
-44	78-44	-124	78-124	-10	102-1	-58	93-3
		-125	78-125	-13	102-2		49-33
-45	78-45	-126	78-126	-14	102-3	-59	49-78
-46	78-46	-127	78-127	0300100-1	37-55	-60	81-21
-47	78-47	-128	78-128	-5	37-53	-61	82-18
		-130	78-130	-6	37-24	-62	82-19
-48	78-48	-131	78-131	-9	37-55	-63	58-12
-49	78-49	-132	78-132	-20	37-6	-65	92-17
-51	58-11	-133	78-133	-28	37-53	-66	92-29
	49-13	-134	78-134	-29	37-53	-67	28-13
-56	78-56	-135	78-135	-38	37-24	-68	28-13
-57	78-57			-47	39	-69	66-35
-59	78-59	-136	78-136	-99	41-25	-70	69-10
-62	78-62	-137	84-10	-121	41-6	-71	69-10
-63	78-63			-130	37-6		69A-8
-64	78-64		78-137	-133	37-55	-72	92-10
-65	78-65	-138	84-11	0300106-1	36-6	-73	65-23
-66	78-66		78-138	-2	36-7	-74	65-33
-67	78-67	-140	84-12	-3	36-8	-79	28-13
-68	78-68	-142	78-142	-4	27-11	-80	28-13
-69	78-69	-143	78-143	-5	27-11	-81	67-16
-70	78-70	-144	78-144	-6	66-22	-82	92-14



## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0300106 -87	69A-22	0310107 -11	32-28	0310207 -4	72-59	0310226	20-72
-91	69A-20	0310108	23-7	-5	71-2	0310227	97-13
-92	69A-21	0310110	23-11	-6	71-10		71-4
-93	69A-23		72-32	-7	71-3		73-4
-156	69A-10	0310112	23-12	-8	75-25	0310228	74-9
0300109	85-1	0310113	23-14	-9	75-21		74-10
0300111-8	85-6	0310114	23-13	-10	74-43	0310231	21-39
-10	85-7	0310115	70-15	-11	76-18		76-10
-11	85-5	0310120	70-16	-12	72-65	0310233	22-25
-42	85-5	0310124	68-98	-13	71-11	0310253	21-39
0300204-4	67-26	0310126	68-92	-14	20-84	0310255	95-32
0300715-4	20-3	0310127	68-13	-15	20-83	0310260	20-23
0310000-2	19-22		68-19	-22	88-40	0310262	18-46
-3	19-23	0310137	68-99	-23	88		18A-1
-4	19-24	0310139	95-13	-24	88	0310263	76-13
-5	19-30		68-4	-26	88-	-1	76-14
-6	19-24	0310140	95-30	-28	88-	0310264	76-11
-7	19-28	0310149-1	68-116	-29	88-	0310265	76-12
-8	19-29	0310150-1	95-16	-30	88-	0310266	76-34
-9	19-25	-2	95-15	-31	88-	0310268	76-32
-10	19-27	-3	68-109	-32	88-	0310270	76-
-11	19-26		74-1	-33	88-	0310274	76-3
-12	19-28	0310151	68-115	-34	88-	0310275	76-1
-13	19-29		74-2	-35	88-	0310276	76-2
-15	19-30	0310153-1	68-110	-38	88-	0310278	76-21
-17	28-3	0310154	95-31	-39	88-	0310280	76-17
0310005	19-4	0310155	72-50	-40	88-	0310281	76-26
-50	77	0310160	17-19	-41	88-	0310282	76-29
0310010-1	89-1	0310162	20-88	-42	88-	0310283	76-33
-2	89-8	0310165	23-6	-43	88-	0310289	74-8
-3	89-15	0310166	23-15	-44	88-	0310291	70-23
-4	89-15	0310167	32-15	-45	88-		70-27
-5	89-16	0310174	70-21	-50	97-11	-1	70-27
-6	89-16		70-22		73-2	0310293-2	16-1
-7	89-10	0310178	19-38	-51	97-25		73-16
-8	89-11	0310179	19-41		73-15	-3	16-1
-9	89-17	-1	19-41	-52	97-12	-11	16-6
-10	89-12	0310180	19-40		73-3	0310313	37-75
-11	89-27	0310181	19-37	-53	97-27	0310314	68-16
-12	89-22	0310182	19-39		73-38	0310315	23-32
-13	89-23	0310183	71-1	-54	71-2	0310321	75-5
-14	89-24		71-36	-55	71-3	0310324	75-3
-30	89-29	0310184	70-5		21-40	-3	75-3
-31	89-30	0310187	70-11	0310208	76-15	0310326	75-6
-32	89-31	0310188	19-46	-1	21-40		75-7
-33	89-32		70-1		76-16	0310332	16-2
-34	89-45	0310189	76-5	0310209	21-40	0310333	68-57
-35	89-34	0310191	20-89	0310211	70-8		68-61
-36	89-33	0310192	97-33		74-20	0310334	68-58
-37	89-25		71-37	0310212	20-89		68-62
-38	89-46		73-46	0310213	75-18	0310336	72-39
-40	89-35		74-47	0310215	20-71		73-28
-41	89-5	0310194	23-9	0310216	75-13	0310337	75-4
-42	89-36	0310196-2	40-32	0310217	20-70	0310338	75-1
-43	89-19	-3	72-1	-1	20-	-3	75-1
-51	89-53	-4	72-2	0310218	72-30	0310339	75-14
-52	89-55	0310202-1	70-21	0310219	72-31	0310340	95-2
-53	89-54	0310207-1	72-13	0310220	72-33		68-55
0310103-2	72-38	-2	74-7	0310223	72-55	-3	95-2
0310107-10	32-11	-3	74-41	0310225	75-22		68-59

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0310341-3	68-56	0310429	68-42	0311000-59	20-	0311020-10	45-9
-4	68-60	0310430-2	97-1		21-7	0311021-1	45-14
0310343	68-105	-3	97-2	-60	19-21	0311022	2-24
0310344	68-101	0310431	68-26	-64	20-	-1	8-23
0310345	68-100		97-7		19-21	0311025	66-1
0310346	68-108	0310432	97-16		21-	0311026-1	45-15
0310348	68-35		74-10	-140	21-90	0311029-1	45-16
0310349	68-34	0310433	68-18	0311001-3	26-19	0311030-1	42-22
0310350	68-14	0310434	97-4	-4	26-20		46-32
	68-20		68-17	-5	26-21	-2	42-16
0310353	68-17	0310435	21-41	-6	26-4	-4	42-16
0310356	68-65	-3	21-41	-7	26-2	-5	42-17
0310358	68-51	0310436	97-39	-8	26-3	0311031-1	42-21
0310359	68-38		21-47	-9	26-10	-2	42-21
-3	68-38	0310437	97-10	-10	26-18	0311034-1	45-17
-4	68-38		73-1	-11	26-7	0311035-3	45-18
-5	95-7	0310439	97-5		26-25	0311036-1	45-19
	68-69		68-10	-12	26-15	0311037-5	83-1
-6	68-38	0310440	68-22	-13	19-14		45-21
0310363	68-81	0310441	68-23		26-11	-50	45-20
0310364	95-6	0310443	23-33	-15	19-4	0311038-1	42-29
	68-68	0310444	68-50	-16	19-1	0311040-1	45-22
0310365-2	95-1	0310445	68-21	-17	19-3	0311043-2	75-2
-3	95-1	0310446	97-26	-18	19-2	-3	75-2
-5	95-1		23-47	-19	26-1	0311045-1	45-24
0310366	68-12	0310449	95-36	-20	19-4	-2	45-24
0310367	68-72	0310450	75-27	-21	19-3	0311046	42-17
0310370	95-3	0310452	32-12	-22	19-2	0311047-1	45-26
0310372	68-73	0310453	32-12	-23	19-1	0311051-1	26-37
0310377	95-11	0310456	95-2	-24	19-16	-2	26-35
	68-1		68-59	-27	26-39		37-13
0310379	68-85	-1	68-59	-28	19-15		37-15
0310380	68-86	0311000-3	20-91	-29	19-15		37-50
0310382	68-79	-4	21-81	-30	19-15	0311052	66-53
0310388	68-15	-5	20-53	-31	19-15	0311053	77-16
0310389	32-16	-6	20-52	-32	19-12	0311057-2	81-2
0310390	68-9	-7	20-51		90-14		82-2
0310407	32-23	-8	20-50	0311003-3	90-15	0311060-3	45-6
0310410	72-47	-10	20-93	-5	90-16	0311070	66-1
0310412	68-89	-11	20-95	-7	37-42	-1	66-1
-2	68-90	-13	21-87	-11	37-42	0311071	66-2
0310413	37-77	-14	21-88	-26	37-42	0311073	66-5
-4	97-6	-15	21-89	0311009	105-17	0311075	66-19
	37-78	-18	21-80	-4	105-21	-1	66-19
0310415	68-29	-19	21-75	0311014-6	45-6	0311076	66-9
0310417	73-23	-20	21-77	-8	45-6	0311077	66-14
0310419	73-25	-22	20-94	-22	45-6	0311078	66-3
0310420-2	73-17	-23	20-92	0311015-1	45-6	0311079	66-18
0310421	97-28	-24	21-93	-3	45-7	0311108	20-34
	73-39	-25	21-85	-4	45-7	0311112-1	20-62
0310422	16-3	-26	20-97	0311016	45-23	0311115	20-27
0310423	95-9	-27	20-98	0311018-2	45-8	-1	20-30
	68-2	-29	21-83	-4	45-8	-8	20-28
0310424	68-45	-30	21-79	-5	58-78	0311116	20-64
0310425-1	68-43	-31	21-81	-6	49-85	0311118	20-29
-2	68-44	-32	20-54	-7	45-8	0311120	20-31
0310426	97-3	-33	21-86	0311020-5	45-9	0311122	26-17
	68-39	-34	20-100	-6	45-9		21-73
0310427	68-41	-35	20-96	-7	45-10	-1	26-17
0310428	68-40	-54	20-99		49-36		26-16



## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0311332	20-32	0311413-77	41-6	0311515	41-24	0311644	40-28
	21-49	-79	41-7		41-44	0311646	38-4
	22-15	-107	41-6	-2	37-30	-7	38-5
0311337	21-32	-117	41-25	0311516	19-47	0311647-12	39-13
0311338	21-24	0311414	19-36	0311517	19-47	-14	39-6
0311344	105-5	0311415	19-35	0311519	66-47	-22	39-5
0311346	20-57	0311416	19-33	0311524	66-48	-30	37-53
0311349	21-48	0311417	19-34	0311525	66-46	-34	37-53
-1	21-58	0311419	38-6	0311538-1	66-63	-40	39-6
0311350	21-50	-8	38-6		42-20	-41	39-5
	46-31	0311420	19-31	-4	42-20	0311648-3	39-52
-3	21-54	-1	19-32	0311539-3	39-72	-5	39-53
-4	21-55	0311424	39-71	0311549	20-77	-7	39-54
-5	21-52	0311426	37-64	0311553	44-15	-9	39-55
-6	21-57	0311430	19-31	0311556-3	45-2	-11	39-56
-7	21-56	-1	19-32	-5	45-3	0311649	40-36
-10	21-51	0311431	20-74	0311557-3	45-1	0311650	42-45
-13	21-53	0311433	91-26	0311558-3	81-1	-2	42-46
0311356-3	19-45		39-63		82-1	0311653	42-47
-5	19-44	0311434	91-22		43-13	0311654	42-33
-6	19-45		39-64	0311560	42-6	0311656	42-48
-7	19-44	0311435	91-6	0311563	44-4	0311657	42-49
0311358	27-8		39-65	0311567	44-3	0311658	42-50
	28-9	0311441	20-82	0311579	44-7	0311659	42-55
0311359	27-9	0311442-6	20-85		42-63	0311660	42-51
	28-10	0311443	20-9	-4	64-6	0311661	42-53
0311360	67-43	-2	97-36	0311580	42-4	0311662-3	42-28
	21-1	-3	20-10	0311581-1	42-11	-4	42-24
0311361	85-4	-4	20-10	0311585	81-47	0311663	42-27
0311363	39-51	-5	20-10		43-3	0311664	42-35
0311364	21-91	0311444	39-19	0311586	40-22	0311666	42-25
0311367-2	98-1	0311445	20-81	0311599	21-84	0311668	40-26
-3	98-2	0311447-9	43	0311618	40-	-1	40-27
-4	98-3		45	-2	40-	0311669	43-15
-5	98-4	-10	43-1	-6	40-3	0311670	43-17
0311404-3	91-36		45-	-12	40-7	0311672	43-14
-4	91-37	0311448	38-12	-49	98-5	0311673	40-35
-16	91-7	0311449	66-58	-49	98-5	0311679-3	90-3
-17	91-19	0311450	66-59	-53	40-2	-5	90-2
-18	91-17	0311453	37-63	-73	40-1	0311694	42-8
-19	91-2	0311475	20-21	-76	40-1		42-13
-20	91-3		20-25	-85	40-	0311701-3	99-1
-22	91-1		20-55	-86	40-	-4	99-2
-23	91-42		22-2	-87	40-2	-5	99-3
-24	91-43		22-5	-100	40-8	0311707	66-11
-26	91-44	0311480	42-1	0311619	40-4	0311710-6	40-12
-27	91-16		44-	-1	40-5	-7	41-9
-28	91-49		21-64	0311620	37-73		41-10
-31	91-45	0311481	44-1	0311622	37-20	0311711	40-15
-32	91-20	0311482-1	21-5	0311623	37-26	0311715-3	20-2
-35	91-11	-2	21-5	0311625	37-49		20-6
	91-18	0311486	67-20	-1	37-9	-4	20-7
-36	91-41	0311487	26-28	0311626-3	37-25	0311717	89-20
-37	91-59	0311488	26-29	-4	37-18	0311719	19-5
-38	91-9	0311489	26-30	0311628	37-40	0311720	20-73
-39	91-27	-1	26-31	0311638	44-9	-3	20-73
-50	91-	0311491	97-20	-1	44-10	-5	20-73
-59	91-60	0311493	37-35	0311639	44-16	0311722	37-71
0311413-70	41-25	0311498	40-34	0311640	44-17	0311730	41-33
-72	41-26	0311512	40-19	0311641	41-16	0311732	37-79

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0311734	46-17	0311752-15	20-17	0311815	77-25	0312140	25-1
0311735	46-18		64-20	0311823	105-33	-3	25-3
0311736	46-30	-18	64-26	0311825-1	93-8	-6	25-9
0311737	46-15	-20	20-17	-2	57-41	-7	25-11
-3	46-16		64-24	0311826	91-47	-8	25-12
0311738	46-21		65-35	0311852	37-64	-9	25-8
0311739	46-20	-28	65-1	0311856-1	43-17	-17	25-17
0311740	46-19	-29	65-31	-2	43-17	-18	25-6
0311741-11	41-1	-30	65-25	0311857-2	87-5	-21	25-2
-12	41-2	-31	65-2	-3	87-11		25-10
-14	41-32		37-36	-4	87-4	0312142	25-10
-20	41-30	0311755	20-67	-5	87-2	0312155-3	94-1
-21	41-20	0311756	46-3	-6	87-3	-4	94-4
	41-38	0311762	21-95	-9	87-1	-6	94-2
-22	41-42	0311764-1	26-38	-10	87-6	-10	94-7
-23	41-39	0311765	20-14	-11	87-8	0313313	82-46
-24	41-43		64-12	0311874	21-47	-3	84-2
-25	41-40	0311768	64-1	0311875-22	15-33	0311122	26-16
-26	41-41		42-19	0312000	23-	0320000	2-
-28	41-21	0311769	64-	-3	23-36	-1	8-
-29	41-22	0311772-2	64-13	-4	23-43	-2	2-25
-30	41-23		37-68	-5	23-35	-3	8-24
-33	41-18	-3	64-14	-6	23-42		2-15
-34	41-28		37-66	-7	23-34	-5	8-15
-39	41-19	-4	64-13	-8	23-41	-6	2-1
-42	41-29		37-67	-9	23-39	-11	8-1
-81	41-31	0311775-1	43-17	-10	23-45	-20	8-1
-82	41-31	-2	43-17	-11	23-30	-21	2-1
0311742	46-26	0311777	42-30	-12	23-44	-60	8-1
0311743	46-25	0311779-4	65-9	-13	23-37		9-1
0311744	81-7	-17	65-28	-14	23-38	0320005-22	2-1
	82-15	-22	65-14	-25	23-27	0320105	9-67
	46-11	-23	65-15	-26	23-28		2-19
0311746	37-70	-24	65-10	-27	23-48	0320106	8-18
0311750	46-2	-26	65-30	-28	23-49	-1	7-16
0311751	46-1	0311789	45-30	-29	23-31	-2	13-21
-2	46-5	0311792	68-24	-30	23-29	-3	7-17
0311752-1	65-	0311797	37-23	-32	23-	0320107	13-22
-2	20-17	0311799	21-33	-33	23-44	-1	7-18
	64-31	0311803	37-58	0312106	23-19	-2	13-23
-3	91-48	0311804	37-58		23-50	-3	7-18
	64-33	-1	37-58	-50	23-49	0320108	13-23
	65-34	0311805	44-8	0312108	23-20		7-18
-4	64-29	0311807-1	85-	0312109	23-21	0320109	13-23
-5	64-35	-3	86-9	0312110	23-22		7-18
	65-36		87-12	0312111	23-23	0320110	13-23
-6	64-32	-6	86-1	0312112	23-5		7-18
-7	64-17	-11	86-3		23-17	0320111	5-25
	65-42	-17	86-2	-3	23-16	-1	11-25
-8	64-19	-18	86-4	-5	23-5	0320116	5-25
	65-13		87-7	-9	23-4		11-25
0311752-9	20-17	-19	86-5	0312115	23-3	0320117	5-26
	64-19	-20	86-6	0312116	23-2	-1	11-26
	65-12	-21	86-7	0312119	23-1	0320119	5-29
-10	64-37	-32	86-8	0312122	23-18		11-29
	65-37	0311808	42-1	0312128	23-18	0320121	7-9
-11	64-16		44-	-1	23-18		13-15
	65-16		21-64	0312137	23-40	-2	7-10
-12	64-18	0311809	44-2		23-46		13-16
	65-11	0311811	64-1	-3	23-40	0320124	5-27
				-4	23-46	-1	11-27

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0320125	5-28	0322100-8	4-9	0322126-7	4-35	0322212	5-11
-1	11-28	-9	4-27		10-37		11-11
0320126	6-19		10-26	-8	4-37	0322213	5-13
	11-19	-10	4-25		10-38		11-13
0320127	74-38		10-24	-9	4-39	0322214	5-14
0320129	14-25	-11	4-26		4-14		11-14
	14A-15		10-25	-10	10-39	0322215	5-15
-3	14-26	-12	4-8		4-47		11-15
	14A-16	-13	4-30	0322127	10-49	0322218	5-5
0320132	5-24	-14	4-44		4-22	-1	11-5
-1	11-24	-15	4-7		4-42	0322220	5-16
0320135	14-32	-16	4-28		4-53	-1	11-16
	14A-31		10-27		10-22	0322221-1	11-16
0320137	14-19	-18	4-1		10-35	-3	5-18
	14A-11		3-1		10-48	-4	5-17
-3	14-20	-20	4-31		3-58	-5	11-17
	14A-12	-21	4-9		9-65	-6	11-18
0320138-1	14-28	0322108	4-13	0322128	3-64	0322222	9-2
	14A-18		10-12		9-68		11-
-2	14-23	0322109	4-15		16-10	-3	11-2
	14A-15		10-13	-25	16-10	-4	11-7
0320139	14-22	0322110	4-17	0322131	4-10	-5	11-12
	14A-14		10-14	-1	10-10	-20	11-1
0320140	7-21	0322111-1	10-15	0322135	6-10	-21	11-1
	13-26	-3	4-19	-1	12-10	-22	11-6
0320145	14-15	0322112	4-32	0322136	6-8	-23	11-11
	14A-26		10-30	-1	12-8	0322300	4-1
0320200	2-1	0322113	4-34	0322140	10	-1	10-1
	3-		10-31	-5	10-41	-2	4-1
-2	3-33	0322114	4-36	-7	10-29	0322307	4-3
-3	3-38	-3	4-36	-9	10-9		10-3
-4	3-36		10-32	-10	10-8	0322309	4-4
-5	3-39	0322115	4-38	-11	10-28	-1	10-4
-6	3-37		10-33	-12	10-40	0322327	4-5
-7	3-40	0322116	4-40	-13	10-7	-1	10-5
-8	3-35		10-34	0322142	4-11	0322329	4-2
-9	3-41	0322117	4-46		10-11	-1	10-2
-10	3-34	-1	10-42	0322143	4-21	0322330	4-12
-12	3-1	0322118	4-48		10-16		10-17
0320300	8-1		10-43	0322144-1	10-23	0322400	5-20
		0322119	4-49	-2	4-24	-1	11-20
-2	9-38		10-44	0322200	3-2	-20	5-20
-3	9-39	0322120	4-50		5	-21	11-20
			10-45	-3	5-2	0322406	5-21
-5	9-40	0322121	4-51	-4	5-7		11-22
-6	9-41		10-46	-5	5-12	0322408	5-23
-7	9-42	0322122	4-52	-20	5-1		11-23
-8	9-43		10-47	-21	5-1	0322434	5-22
-9	9-44	0322123	6-9	-22	5-6	-1	11-21
-10	9-45	-1	12-9	-23	5-11	0322435	2-49
		0322126-2	4-14	0322206	5-3		8-45
0322006	2-42		10-18	-1	11-3	0322500	3-17
-1	3-62	-3	4-16	0322208	5-6	-1	9-18
-2	3-66		10-19		11-6	-3	3-18
-4	3-67	-4	4-18	0322209	5-8	-4	9-19
0322100	4-		10-20		11-8	0322506	3-13
	3-1	-5	4-20	0322210	5-9	-1	9-13
-4	4-45		10-21		11-9	0322507	3-12
-6	4-31	-6	4-33	0322211	5-10	-1	9-12
			10-36		11-10	0322508-1	3-14

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0322508-1	9-14	0322532-1	8-2	0322706-1	9-60	0323113	12-26
-2	3-15	-3	2-13	0322709	5-35		6-26
	9-15		8-13	-1	11-33	0323114	12-28
3	3-16	-4	2-3	0322710-1	9-59		6-30
	9-16		8-3	0322711	2-59	-1	12-29
-4	3-17	-5	2-14	-1	8-57		6-31
	9-17		8-14	0322712	2-51	0323115	6-19
0322509	3-29	0322533	2-4	-1	8-47	-1	12-19
	9-31		8-4	0322714	2-54	0323116	6-24
0322510	3-25	0322534	2-5	-1	8-50	-1	12-20
-1	9-28		8-5		2-55	0323117	12-30
-3	3-27	0322536	2-8	-5	8-53		6-32
-4	9-29		8-8	0322715	8-51	0323118	6-20
-5	3-26	0322539	2-2	-1	3-57	-1	12-21
-6	9-30	-1	8-2	0322716	9-66	0323119	6-21
0322511	3-21	0322540	3-19	-1	14-14	-1	12-22
	9-21	-1	9-20	0322717	2-48	0323120	12-25
0322512	3-30	0322541	2-30		8-44		6-25
-1	9-32		8-29	0322718	69-18	0323122	12-23
0322513	3-25	0322542	66-32	0322719	2-56		6-22
-1	9-22	0322545	66-41		2-60	0323123	12-24
0322514	3-28	0322546	2-28		8-52		6-23
-1	9-33		8-27	0323000	8-54	0323124	46-6
0322515	3-20	0322548	2-11		8-58	0324000	7-1
-1	9-23		8-11		3-3		2-40
0322516-5	3-31	0322550	5-4	-1	6	-1	8-37
	9-26		11-4		12-		13-1
-6	3-24	0322551	2-9	-3	9-3	-3	13-2
	9-35		8-9		12-3	-5	13-3
0322517	3-32	0322552	66-42	-5	6-3	0324109-1	13-4
	9-34	-1	66-42	-7	12-4	0324110	7-2
0322518	3-3	-5	66-42		6-4	-1	13-7
-1	9-3	0322607	3-42	-7	12-7	0324111	7-3
0322519	3-4		9-47	-11	6-5	-1	13-8
	9-4	0322608	3-43		12-1	0324115	13-9
0322520	3-5		9-48	-13	6-1	0324129-1	13-5
-1	9-6	0322609	3-44	-15	12-2	0324130-1	13-6
0322521	3-6		9-49		6-2	0325000	2-41
-1	9-7	0322610	3-45	-17	12-5		8-38
0322522	3-7		9-50		6-6		14-1
	9-8	0322611	3-46	-19	12-6	0325001	14A-1
0322523-1	3-8		9-51		6-7	-1	14A-1
	9-9	0322612	3-47	-19	12-34		2-41
-2	3-9	-1	9-52	-20	6-28	-2	8-38
	9-10	0322613	3-48		12-27		14A-1
	3-10		9-53	0323106	6-29	-3	14A-4
	9-11	0322614	3-49	-1	6-14	-4	14A-6
	3-11		9-54	0323107	12-14	-5	14A-5
	9-12	0322615	3-50	-1	6-16	-7	14A-2
0322524	3-12		9-55	0323108	12-16	-8	14A-4
	9-5	0322616	3-51	-1	6-18	-9	14A-3
0322526	2-21		9-56	0323109	12-18	-10	14A-4
	8-20	0322617	3-52	-1	6-13	-11	14A-4
0322528	3-63		9-57	0323110	12-13	-12	14A-4
	9-46	0322618	6-11	-1	6-15	-13	14A-2
0322530	3-23	-1	12-11	0323111	12-15		14-3
	9-24	0322620	3-67	-1	6-17		14-6
0322531	3-22	0322621	9-58	0323112	12-17	0325110	14-4
	9-25	0322622	69-6	-1	6-12		14-7
0322532-1	2-2	0322706	3-53		12-12	0325115	14-8

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0325115-6	14-9	0332000-28	16-46	0334100-10	18-28	0334201-14	18A-36
0325116	14-10	0332105	16-42	-11	18-19		18A-59
	14A-9	0332106	16-18	-13	18-18	-15	18A-28
-5	14-11		16-18	-20	18-25		18A-51
	14A-10	0332107	16-20	-21	18-45	-16	18A-35
0325117	14A-11	0332108	16-19	0334106	18-22		18A-58
0325118	14-2	0332109	16-21	0334109	18-42	-17	18A-26
-1	14-5	0332110	16-23	-2	18-42	-18	18A-49
0325119	14-12	0332111	16-24	-8	18A-71	-19	18A-27
0325121	14A-7	0332112	16-30	0334111	18-14	-20	18A-50
-4	14A-8	0332113	16-28		18-14	-21	18A-14
0331000-3	15-1	0332114	16-15	0334113	18-21		18A-38
-4	15-2	0332115	16-16	0334114	18-27	-22	18A-15
-50	15-		16-16	0334116	18-33		18A-37
0331100	15-	0332116	16-51	0334117	18-31	-50	18A-36
	15-	0332117	16-17	0334118	18-32	-51	18A-13
0331106	15-4	0332118	16-33	0334119	18-34	-52	18A-36
0331107	15-5		16-33	0334120	18-7	0334206	18-13
0331108	15-6		16-34	0334121	18-19	0334212	18-8
0331109	15-7	0332119	16-35	0334122	18-16	0334213	18-4
0331110	15-8	0332120	16-36		18-16		18-4
0331114-50	15-11	0332121	16-37	0334123	18-37	0334214	18-5
0331118	15-12	0332122	16-38	0334124	18-50		18-5
0331119	15-13	0332123	16-39		18A-5	0334215	18-6
0331120	15-14	0332124	16-40		73-18		18-6
0331121	15-10	0332125	16-41	0334125	18-36	0334218-1	18-1
0331124	15-15	0332127	16-9	-2	18-37	-2	18-20
0331125	15-9		16-11	0334126	18-26	0334220	18-11
0331127	15-3	0332128-1	16-12	0334128	18A-64		18-11
0331128-1	15-34	-26	16-12	0334200	18-	-13	18-7
-2	15-34	0332129	16-43	-3	18-9	0334221	18-16
-3	15-34	-1	16-44	-4	18-10		18-16
-4	15-34	0332131	16-22	-5	18-2	0334222-1	18A-29
-7	15-34	0332134	16-25	-6	18-2	-2	18A-52
-8	15-34	0332136-2	100-1	-6	18-3	0334223-1	18A-22
0331129	15-17	0333000	17		18-3	-2	18A-45
0331130	15-18		17-1	-11	18-	0334224-1	18A-30
0331131	15-21	-3	17-10	-12	18-1		18A-53
0331132	15-19	-4	17-11	0334201-1	18A-13	-3	16-29
0331133	15-15	-5	17-2	-2	18A-36	-4	16-29
	15-16	-11	17-	-3	18A-23	0334225	18A-24
0331134	15-20	-12	17-9		18A-46		18A-47
0331135-1	88-35	0333113	17-3	-5	18A-31	0340304	92-50
-2	88-36	0333114	17-6	-6	18A-54	0341001	27-44
-13	88-38	0333115	17-8	-6	18A-32	0341002	27-45
-15	88-37	0333116	17-12	-7	18A-55	0341003	27-26
-16	88-37	0333117	17-5	-7	18A-33	0341005	29-5
0332000	16-	0333119	17-13		18A-56	-1	29-5
-1	16-45	0333126	17-9	-8	18A-16	-5	29-9
-2	16-46	0333127	17-4	-9	18A-39	-6	29 9
-3	16-47	0333128	17-15	-9	18A-34	-7	29-10
-4	16-48	0333132	17-7	-10	18A-57	-8	29-15
-5	16-49	0334100	18-18	-10	18A-17	-10	29-12
-6	16-50		18-29	-11	18A-40	-12	29-14
-8	16-8	-3	18-30	-11	18A-21	-15	29-18
-18	16-8	-4	18-23	-12	18A-44	-18	29-20
-19	16-10	-5	18-24	-12	18A-18	-19	29-21
-23	16-50	-6	18-28	-13	18A-41	-20	29-22
-24	16-45	-7	18-18		18A-35	-21	29-23
-27	16-	-8	18-35		18A-58	-22	29-25
		-9				-23	29-26



## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0341005-31	29-34	0341102-25	88-17	0341150-10	28-11	0350100	49-2
-32	29-34	0341107	28-15	-50	29-65		49-3
-36	29-38	0341109-1	28-12	-51	29-65		49-4
-37	29-39	-2	28-12	0342006	30-16		49-5
-43	29-45	0341110	27-13		31-		49-6
-44	29-46		28-12	-1	30-16	-3	49-38
-45	29-47	0341112	27-20		31-	-4	52-2
-46	29-48	0341113	27-21	-2	31-2	-5	49-41
-48	29-50	0341115	27-15	-3	31-3	-6	49-61
-49	29-51		28-19	-4	31-4	-7	49-58
-50	29-51	0341116-1	27-7	-5	31-5	-10	55-1
-51	29-52	-2	27-7	-6	31-6	-11	55-12
-52	29-52	-3	27-7	-7	31-7	-22	55-1
-56	29-56		28-8	-9	31-8		47-
-57	29-57	-4	27-7	-10	31-9	-2	47-15
-63	29-63		28-8	-11	31-10	-3	47-13
-64	29-64	-5	27-7	-13	31-1	-4	47-12
-65	29-65		28-8	-14	31-2	-7	47-11
-67	29-24	-6	27-7	0342100-2	30-20	-8	47-10
-68	29-7		28-8	-4	30-20	-9	47-8
0341006	27-27	-7	27-7	-5	30-31	-11	47-7
-1	27-29		28-8	-6	30-45	-12	47-6
-2	27-30	0341117	27-14	0342112	30-51	-13	47-4
-4	27-31		28-18	0342113	30-43	-14	47-14
-5	27-32	0341118	88-23	0342118	30-57	-15	47-5
-6	27-33	0341120	88-18	-5	30-57		81-18
-7	27-38	-1	88-18	0342119	30-23	-5	81-19
-9	27-34	0341121	88-19	-1	30-23		82-17
-10	27-37	-1	88-19	0342121	30-3		0350106
-11	27-28	0341123	88-30	-1	23-51		59-1
-12	27-29	-1	88-30	-2	30-10	-3	62-36
-13	27-35	-26	88-31		30-15		59-2
-15	27-36	0341126	27-12	0342123	30-32	0350107	59-3
-16	27-39	-1	27-12	0342126	30-34	0350108	58-35
-17	27-40	0341130	96-8	0342129	30-33	0350109	58-6
0341012	27-58		96-8	0342130	30-24		49-14
0341013	27-59	0341143-12	96-12	0342131	30-31	0350110	58-71
0341015-1	27-45		96-12	0342132	30-40	0350113-3	58-16
-2	27-46	-13	96-10	0342133	30-38	-4	58-21
-3	27-47		96-10	0342134	30-37	0350114	61-18
-4	27-48	-14	96-11	0342135	30-41	0350115	61-6
-5	27-49		96-11	0342136	30-45	-3	61-3
-6	27-50	-15	96-1	0342137	30-48	0350118	61-22
-7	27-51	-16	96-13	0342138	30-49	0350119	61-7
0341100	27-10	-20	96-5	0342140	30-17		61-12
-1	27-10	-21	96-14	0342142	30-50	0350122	53-12
0341102-1	88-16	0341144	29-3	0342143-2	30-46	0350123	50-4
-2	88-17	-1	29-3	0342144	30-25	0350125	62-1
-3	88-24	0341146	28-29	0342145	30-54	0350126	50-9
-4	88-26	0341150	28-11	0342146	30-47	0350127-1	61-4
-5	88-6	-1	28-11	0342147-2	30-55	-3	61-2
-6	88-6	-3	28-11	0342148	30-56	-4	61-5
-13	88-5	-4	29-4	0342149	30-42	0350132	53-7
-14	88-14	-5	29-2	0342150	30-44	0350133	49-15
-15	88-28	-6	29-2	0342151	30-21	0350134	49-44
-16	88-13	-7	28-14	0342151	30-21	0350135-6	62-33
-17	88-11		28-30	-1	30-21	-7	62-34
-18	88-11		29-	0350001	60-1	0350137	61-19
-19	88-15	-8	29-	0350100	48	0350138	58-34
-24	88-29		28-30		49	0350139	61-23
	88-14	-9	29-		49-1	0350140	61-24
			28-11				

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0350142-4	50-14	0350202	62-23	0350276-1	58-32	0352114-4	56-50
0350143	50-14	0350204	55-22		58-74	-5	56-35
	62-11	0350205	55-21		49-60		56-41
	55-3	0350206	55-19	0350277-5	92-37		56-50
0350144	62-2	0350207	55-14	-7	92-31	-6	56-35
0350146	61-16	0350209	55-15	-9	92-50	0352115	56-42
-3	61-17	0350212	62-31	-14	92-21		56-52
0350147	58-79	0350213-6	62-17	-15	92-32	0352116	56-29
	49-86	0350218	62-14	-17	92-1	0352117	56-43
0350150	60-4	0350220-6	62-12	-18	92-36	-1	56-53
0350151	60-5	-7	62-13	0350280	58-60	-3	56-43
	53-11	0350222	55-32	0350282-1	47-3	-4	56-53
0350152	58-85	0350224-6	55-29	0350283	93-2	0352119	56-45
0350153	61-11	-7	55-30		58-61	-1	56-58
0350154	61-10	0350225	55-31	-3	93-4	0352120-3	54-11
0350155	60-3	0350226-11	55-34		49-30	0342121	56-57
	53-10	0350227	54-5	0350284	49-52	-3	63-7
0350156	57-18	0350233	55-28	0350285-3	79-1		56-56
	57-22	0350234	55-25		80-1	0352122-3	56-30
	58-87	0350235-6	62-25	-14	79-4	-4	56-31
	48-14	0350238	54-3	-16	80-3	0342126-2	63-37
	48-21	-3	54-1	-17	79-2		56-1
	52-20	0350240	55-10		80-2	-3	63-38
0350157	59-5	-1	55-3	0350286	79-5	-6	56-10
0350161	55-11	-3	55-4	0350287	79-7	-7	56-3
0350163	55-2	0350242	62-30		80-5	-8	56-17
0350165	52-3	0350246	62-16	0350289	57-1	-12	56-2
	55-38	0350247	62-15		48-1	-13	56-4
-3	52-4	0350248	57-8	0350290	57-5	-14	56-5
0350166	52-18		48-8		48-6	-26	56-9
-1	52-19	0350250	21-22	0350291	48-7	-27	56-20
0350167	52-12	0350255	49-40	0350293	57-2	-30	56-11
0350172	54-9	-1	81-22		48-2	-31	56-8
0350175	54-6		58-41	0350294-3	79-11		56-16
0350177	54-8		58-46	-4	79-11	0352127	56-46
0350179	54-7		49-46	0350295	49-35	-1	56-59
0350181	54-4		49-70	0350299	82-4	-2	56-36
0350182	54-2		49-91	0350302	80-4	-3	56-37
0350184	62-2	-2	43-8	0350303	81-44	0352131	61-28
0350185	62-5		49-40	0350311	61-29	0352133	56-40
-8	62-6	-3	43-9	0350313-1	82-39	-1	56-49
0350186-7	62-7	-4	43-10	0350314	62-4	0352134	56-21
-8	55-5		43-11	0351000	58-1	-4	63-24
-20	55-6	-5	82-25	0351101	49-7		56-32
0350187	55-2	0350256	52-6	0351107-3	24-7	-20	56-26
0350191	57-3	0350257	52-7	-4	24-8	0352135	56-27
0350198	53-1	0350258	49-23	0351109	48-27		56-44
0350199	50-8	0350259-3	49-75	0352100	56-20		56-54
0350200	57-44	0350260-4	50-1	-20	56-25	0352140-3	56-33
	58	0350261	62-3	0352112	56-41	-4	56-34
-3	58-56	0350263-1	49-57	-1	56-51	-5	56-33
-4	58-10	-3	58-73	-5	56-41	-6	56-34
-5	58-77	0350264	61-1	-6	56-50	0352142	63-22
-6	58-33	0350265	50-7	0352113	56-28		56-23
	58-74	0350266	55-33	0352114	56-35	0352145	63-22
-7	58-73	0350268	58-31	-3	56-35		56-22
-8	58-39	0350273-3	21-34		56-41	0352146	63-10
-10	62	-4	21-35		56-50		63-20
-11	62-11	0350274	52-11	-4	56-35	0352147	63-10
-12	58-9	0350275	59-6		56-41		63-20
0350201	62-24						

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0352150	63-	0353000-4	21-10	0411058-5	33-4	0411421-6	74-35
0352151	63-1	-5	21-12		33-4	-8	72-23
-1	63-11	-6	21-15	-6	33-5		74-18
0352152	63-21	-8	21-17		33-5	0411468	88-1
-5	63-33	-9	21-18	-7	33-6	0411489	72-18
-6	63-33	-10	21-25		33-6		72-22
-20	63-23	-11	21-27	-8	33-7		74-17
0352154	63-26	-12	21-28		33-7	0411490	75-29
0352155	63-28	-14	21-19	-9	33-8	0411491	71-15
-2	63-29	-15	21-20		33-8		71-24
0352156	63-12	-16	21-16	-10	33-11		71-30
0352158	63-3	-17	21-23		33-11		64-22
-1	63-16	-19	21-26	0411059-1	81-46		73-10
0352159	63-4	-26	21-21		43-2	0411523	71-19
-1	63-17	-27	21-14	0411062-1	105-9	0411524	71-20
-2	63-35	-29	21-13	0411063-3	105-12	0411530	25-19
-3	63-35	-31	21-11	0411065	105-8	0411548	32-24
0352160	63-5	-32	21-9	0411067	105-18	0411549	32-5
	63-14	-33	21-30	0411078-1	101-1	0411550	32-6
0352161	63-6	-34	21-29		101-2	0411555	38-27
	63-15	0353111	19-47		101-3	0411563	32-17
0352162	63-9	-1	24-1		101-4	0411564	32-20
	63-19	-3	24-5		101-5	0411600	72-3
0352163	63-30	-4	24-2	0411081	49-21	0411631	41-34
-1	63-31	-5	24-3	-1	58-38	0411778-1	32-14
0352164-3	63-25	-6	24-4	0411089	68-6	-2	32-14
0352165	63-27	-9	24-6	0411091-4	42-34	0411782	105-14
0352170	56-55	-10	24-6	0411092	91-10	0411815	52-10
-3	56-55	0353112-1	24-1		26-32	0411818	41-35
0352171-2	47-16	-2	24-5		37-58	0411875-9	69-22
-3	47-21	-3	24-4		42-7	-12	46-22
-5	47-22	-4	24-2		42-12	0411889	42-54
-6	47-17	-5	24-3		46-7	0411986-2	40-39
-7	47-18	0391000	19-		46-27	0412006	72-26
-8	47-19	-1	19-4	-1	37-58	0412007-2	58-58
-10	47-28	-2	19-21	0411094	42-23	-3	58-57
-11	47-29	0391200	19-21	0411217	105-19	-4	77-19
-12	47-30	0400005-51	78-51	0411263	32-1	-21	49-22
-14	47-23	0410108-1	74-44	0411264	32-2	0412146	19-18
0352173	63-2		76-34	0411300	32-12	0412147	19-19
-1	63-13	-2	72-26	0411302-3	34-1	0412148	19-20
0352174	63-8	0411009-2	45-28	-4	34-8	0412467	97-37
	63-18	0411010-2	45-29	-5	34-12		20-90
	63-34	0411021-1	77-17	-7	34-14	0412473-3	42-52
0352175	54-11		42-39	-8	34-18	0413018-1	105-2
-2	54-12	0411030-3	37-7	-9	34-9	0413126-4	42-44
-3	54-13		39-11	-11	34-11	0413155-3	46-4
0352176	56-47	-4	39-10	-13	34-5	0413174	105-32
	56-60	0411039	105-13	-14	34-10	0413175	105-30
0352177-3	56-38	0411054	105-1	-15	34-4	0413195	91-4
-4	56-38	0411056-1	105-4	-16	34-6	-3	39-29
0352178-7	63-9	0411057-5	105-3	-17	34-2	0413206	45-25
-8	63-9	0411058	33-	-18	34-7	0413228	46-10
	63-19		33-	-19	34-3	0413236-2	105-27
-13	63-19	-2	33-	-21	34-15	-5	105-28
	63-32		33-	0411307	32-25	0413247-1	2-23
0352179	47-20	-3	33-1	0411369-2	32-13		8-22
	47-27		33-1	0411421-2	72-16		43-4
0352255-4	58-76	-4	33-2		88-2	0413271-11	39-20
0353000-3	21-8		33-2	-6	72-17	-12	39-24

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
0413271-13	39-25	0511025-2	105	0541144	35-2	52-3-526	79-10
-14	39-26	-3	105-3	0541147	35-7	-535	84-
-15	39-27	0511058-4	104-1	0541148	35-9	-538	88-34
-16	39-28	0511059	81-5		35-5	-539	102-
-17	38-16		82-5	0541149	35-10	-541	92-
-18	38-17	0511061	102-15	0541151	35-13	-542	91-
-19	38-18	0511062-2	84-1	0550158	57-16	-543	99-
-20	52-8	-5	84-4		57-32	-544	85-4
-21	52-9		2-38		57-39		86-
0413279	19-21	0511063	42-26		48-15	-545	79-
0413317-1	91-15	0511081	91-15	0616052	66-7	-549	49-29
	39-9	0511165	85-14	0713039	68-59		93-
0422007-3	3-68		85-17	0721101	69A-12	-551	100-
0422342	88-33	0511166	85-16	-4	4-23	-553	85-13
0422344	3-59	0511181	39-8	0721105-1	69A-16	-556	89-
	9-64	0511182	39-7	-2	69A-14	-561	85-
0423006-1	2-30	0511183	91-14	-4	69A-18	-568	80-
-2	2-32		39-9	-5	69A-17	-570	82-
-3	8-29	0511189	91-15	-8	69A-19	-574	88-40
-4	8-31		39-9	0750103-1	81-3	-578	97-
-5	2-33	-1	91-15	1-02-000	45-27	-580	93-
	8-32		39-7	1-1/2PF-11	90-13	-589	87-
-6	2-31	-2	91-15	1/16 x 3/8	68-103	-595	104-
	8-30		39-8	# 2	77-14	-597	83-
-7	2-35	0511231-3	65-7	3P-194E	81-4	-598	85-4
	8-34	-4	65-4	3S-218R	82-3	-605	82-5
0425124	76-4	-5	65-5	# 6	90-19	# 55	41-8
0425130	76-6	-16	65-6		74-44	# 55	41-27
0424133	76-7	-17	65-3	# 7	78-	# 93	105-15
0430010-1	15-27	0513124-1	66-19		78-47	# 100	85-3
	16-56	0534101	18A-66		78-48	200AC6	35-4
-2	99-4	-7	18A-61		78-49	# 214	3-63
	15-28	-8	18A-62		78-14		9-46
	16-57	-11	18A-67		78-16	309-8A	58-60
0432123	16-13	-12	18A-68		78-21		49-20
0432126	16-7	-14	18A-60		78-23	518B01	69-19
0432134-1	68-46	-15	18A-69	# 8	41-8	# 584	58-2
	68-95	0534116-3	18A-63		41-27	700 x 8	29-2
0432155	16-54	-4	18A-25	10-32 x 5/8	40-9		29-1
0433006	25-14		18A-48	1/8 x 5/16	92-36	703-13-12D	92-41
-2	25-15	0541116-5	29-11	21F483	58-3	-34D	92-5
-3	25-16		29-16		49-8	710-13-34D	92-5
0434114	18A-60	-8	29-61	22A3-02	16-26	755-2-2-6	92-33
0441115	27-3	-11	29-31		5-39		66-71
	28-4	-12	29-30		11-39		64-30
-1	28-4	-13	29-32	22A17-82	47-25	776D6A	81-6
0441143-11	96-2	-14	29-33	28-20	47-2	979B1	65-8
	96-2	-17	29-35	22NA102	2-29	1024 x 1/2	35-15
0450017-12	43-7	-20	29-40		8-28	# 1144	19-13
0450320-5	4-6	-21	29-41	22NKM9-2	37-56	# 2169	14-16
	10-6	-22	29-42	3/4 x 15	77-15		14A-27
	46-13	-24	29-8	38 Inch	90-18	# 2265	67-41
0452120	46-23	-34	29-53	52-028-125-0500	66-4	# 2278	98-5
0500006-10	102-4	-36	29-60	52-3-502	90-		98-5
0500106-78	65-21	0541138-3	32-4	-505	88-	2600-02	56-33
0511005-5	105-26		35-	-506	95-		56-34
0511018	37-11	-5	35-	-507	95-	-048	63-2
0511024	105-	0541139	35-14	-512	96-		63-12
0511025	105-1	0541140	35-12	-521	81-		56-43
-1	105-2	0541143	35-1		81-6		56-43

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
2600-048	56-53	A50	78-22	A84	78-35	AN3-5A	58-36
	56-55		78-23		78-37		62-8
	63-2		78-24		78-39		63-29
	63-12		78-43		78-41		17-17
	56-53		78-44		78-43		3-55
	56-55		78-45		78-44		9-62
# 4101	68-25	A68B	100-1	A130	88-3		23-25
6135A15	47-1	A71	78-143		88-8		55-7
# 7435	98-5		78-70	A138	20-86		72-41
8801-7	77-32	A77	78-113	A210-1A	20-86		76-27
16007-7	66-8		78-114	A230A10	12-33		5-24
-11	66-12		78-115	A443-2	14-21		5-31
-20	66-15		78-117		14A-13		5-38
# 48152	2-37		78-119	-3	14-27		11-35
	8-36		78-120		14A-17		56-24
# 48192	61-15		78-122	A931-4S12	69-13	-6	71-21
49020F26	19-17		78-123	A1663-017-1	91-13	-6A	88-4
# 49165	77-1		78-125	A1778-82-3	36-22		71-12
49167-1	77-2		78-126	A3046A4	36-20		57-19
49265F52	37-42		78-127	A3047A4	90-17		57-23
	37-44		78-132	A3493-1	77-5		58-89
	43-18		78-134	AA	78-137		26-5
49330F2	79-6		78-142		78-64		39-45
#49398	29-49		78-145		78-65		48-12
49265F52	37-32		78-154		78-66		48-19
# 57354	60-2		78-159		78-68		48-22
# 90072	67-29		78-69		78-115		72-45
# 99608	77-3		78-110		78-119		72-60
99608F32	42-3		78-15	AB924-8D	66-45		73-21
99608F52	38-8		78-17	AC365-820	68-80		75-30
100004-79	103-1	A84	78-113	AF934-5	66-13		5-32
# 475261	42-18		78-114	-10	66-16		5-37
# 484972	42-18		78-120	-17	66-17		11-31
A5-35	56-7		78-124	AJ5-40	56-8	-7A	88-9
	56-13		78-127		56-14		67-36
	56-18		78-138		56-19		68-106
A34	78-130		78-142	AK9047-1	98-		57-12
A36	78-130		78-143	AK9052-1	98-5		18-43
	78-134		78-144	-2	94-		18A-72
	78-144		78-152	AK9054-2	95-		72-36
	78-162		78-153	AN3-3A	85-2	-7Z	18-49
	78-163		78-156		77-18	-10A	7-13
	78-166		78-158		20-88		97-22
	78-51		78-159		15-24		67-35
	78-57		78-162		18-17		71-17
	78-90		78-163		18-17		71-26
	78-108		78-46		16-31		57-6
	78-109		78-51		16-52		58-7
	78-8		78-56		21-39		64-22
A50	78-138		78-57		32-7		18-54
	78-158		78-59		41-4		26-22
	78-46		78-70		72-48		13-19
	78-47		78-90		5-30		32-18
	78-48		78-3		11-36		41-5
	78-49		78-7		85-8		73-12
	78-14		78-8		88-25		76-30
	78-15		78-14	-5A	104-2	-11A	13-12
	78-16		78-16		19-42		48-9
	78-17		78-21		88-20		7-6
	78-21		78-23		92-26		32-26

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
AN3-11A	71-33	AN4-11A	18A-7	AN23-9	73-40	AN310-3	72-5
-12	57-9		18A-11	-10	72-4		72-8
-12A	14-33		70-2	-11	72-66		72-28
	14A-32		70-12		72-7		72-63
	70-24		70-31		72-27		73-31
	70-28		74-36		73-30		73-36
	75-16		7-4		73-43		73-41
	75-33		7-24		97-31		73-44
-13A	39-40		68-31	-12	74-31		74-32
	40-23	-12	30-13	-13	57-35		76-20
	70-24	-12A	14-24		72-62	-4	30-14
	76-35		14-29		20-87		30-29
-14	38-1		14A-19	-13A	76-8		30-5
	19-		14A-22	-16A	76-19	-5	23-53
-14A	32-3		27-41	AN24-12	30-28		30-12
-15A	81-23	-13A	20-75	-15	72-56	-6	30-19
	82-20		41-13	AN75A-6	52-1	-4R	13-18
	50-2	-14A	72-24	AN960-10	13-13		34-17
	50-10		74-15	AN155-8S	97-24		35-11
-20A	41-3	-15	69-21		71-9		7-12
	49-72	-15A	19-		73-14	-412	33-10
-21A	91-32		39-4		75-26		33-10
	95-26	-16A	14-17		76-24	AN320-3	19-
-22A	29-27		14A-28	AN155-16S	72-43		57-36
-26A	62-18	-17A	28-5		73-33		38-2
	62-26		28-5	-32L	72-11		72-67
	55-16	-20A	73-26		74-8	-4	72-57
	55-35		7-22		74-42	AN340-4-6	96-9
-35A	58-80	-21A	13-27	-32S	95-19		96-9
AN4-4A	66-68		99-6		68-115	-8	81-48
-5A	77-20	-26A	23-8	AN161-8RS	72-12		43-5
	15-25	-27A	30-1	-16LS	76-25	AN340B-8	105-4
	16-55	-34A	66-50		72-40	AN350-1032	85-12
-6A	93-10	-36A	70-18		73-29		89-44
	57-42		70-9	-22RS	72-10	AN362F1032	40-11
	20-42	AN4H-7	74-21	AN165-16RS	72-44	AN364-428	53-9
	73-19		58-84		73-34		58-86
-7A	99-5	AN5-5A	59-1	AN200KS3	7-19	-524	68-77
	17-21		88-21		13-24		97-18
	41-11	-11A	88-37	AN210-3A	74-13		71-8
	48-3	-13A	29-17	-4A	72-14		73-8
	49-11	-26A	27-18		74-19		74-12
-7A	50-5	AN6-6A	68-76		74-23	-820	68-8
	74-24		96-7		74-27	-918	58-83
-10A	19-		96-7		74-34		29-5
	88-27	-20A	27-24	AN230A-3	4-29	-1216	95-8
	67-38	-21	51-15		4-43		68-70
	16-58	-26A	95-28		4-54	AN365-428	27-6
	72-51		57-14		10-50		27-42
	18A-9		48-25		6-27		28-7
	39-1	-40A	71-7	AN230B3	10-51		39-2
	40-13		74-11	AN251-0-600	37-60		39-5
	72-19	-44A	97-17	AN253-2-28125	18-41		41-15
	72-53		73-7	AN257-33875	89-49		42-60
	74-28		74-11	AN276-6	48-17		48-4
-11A	17-23	-56	30-18	AN280-304	95-5		48-16
	18-52	AN10-46A	27-1		68-67		48-18
	18-56		28-1	AN310-3	97-30		49-12
	13-10	AN23-9	97-29		14-35		50-6
	13-29		73-35		14A-34		70-4

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
AN365-428	70-10	AN365-624	57-15	AN365-1032	92-26	AN365-1032	32-8
	70-13		2-46		94-6		32-18
	70-19		8-42		82-21		38-15
	70-32		48-26		82-48		39-41
	72-20	-624C	27-25		84-8		39-46
	72-25	-632	105-35		97-23		40-24
	72-52		89-60		95-27		42-41
	72-54		90-25		67-35		48-10
	73-20		37-7		68-94		48-13
	73-27		37-13		68-107		48-20
	74-16		37-15		71-13		48-23
	74-22		37-50		71-18		49-74
	74-25		39-12		71-22		50-3
	74-29		56-39		71-27		50-11
	74-37		56-48		71-34		53-13
	99-7		56-61		77-18		55-18
	7-5	-632C	35-6		44-14		55-37
	7-23	-632R8	37-50		57-7		70-3
	7-25	-720	2-50		57-10		70-25
	19-		8-46		57-13		70-30
	85-18	-832	105-11		57-17		72-37
	88-27		90-4		57-20		72-42
	93-11		90-23		57-24		72-46
	66-51		97-9		57-33		72-49
	66-68		97-35		57-40		72-61
	67-39		105-7		58-8		73-13
	68-32		68-28		58-37		73-22
	57-43		68-49		58-81		75-17
	15-26		71-39		58-90		75-31
	17-22		44-12		60-6		75-34
	17-24		57-30		62-20		76-9
	18-44		58-5		62-28		76-28
	18-51		16-5		64-16		76-31
	18-53		20-89		64-22		76-36
	18-58		28-17		64-31		5-34
	13-11		40-41		64-32		5-38
	13-28		42-43		64-39		11-32
	13-30		49-10		65-18		11-38
	14-19		73-48		65-41		62-10
	14-25		74-47		15-23	-1032C	55-9
	14-31	-1018C	24-10		17-18	AN365B632	45-20
	16-59		27-2		18-39	AN366DF1032	21-38
	20-42		28-2		18-51	AN366F428	85-15
	20-76	-1032	96-4		26-5		16-18
	23-10		96-4		26-8		20-
	14A-21		7-8		26-22		20-23
	14A-24		7-15		26-26		21-36
	14A-30		19-42		13-14		5-29
	18A-6		32-27		13-21		11-30
	18A-8		81-24		14-13	AN366F832	89-39
	18A-13		85-9		16-32		91-39
-440	75-9		87-10		16-53		25-7
-524	88-22		88-4		20-87		3-32
	15-32		88-7		20-88		9-36
	27-19		88-9		22-25		20-23
	54-14		88-20		23-26		20-61
-524C	61-27		88-32		14A-25		38-21
-624	8-46		88-34		18A-73		47-24
	79-9		89-42		29-29		96-6
	95-29		91-33		32-3		96-6
			91-62				

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
AN366F1032	20-19	AN380-2-3	74-33	AN507-632R12	56-39	AN526-832R6	20-69
	85-1		75-32		56-48		38-20
	88-25		19-		56-61	-832R7	2-18
	89-47		88-12	-640R4	69A-13	-832R8	44-13
	17-16	-4	71-28	-832R8	105-10		57-29
	18-18		74-26		40-40		58-4
	18-18		74-30	AN510-10R16	94-5		16-4
	20-	-3-2	88-10	AN515-4-12	75-8		42-42
	20-29	-3	30-20	-6-8	29-36		47-26
	5-24	-4	64-21	-6R6	37-7		49-9
AN375D20	49-82	-4-2	2-12		39-11	-832R9	97-34
AN380-1-2	18-40		8-12		81-8		25-7
-2-1	68-119		91-21	-6R14	82-16		73-47
	20-82	-3	40-31		37-59	-832R10	68-48
	40-30	-4	71-35		90-5		71-38
	74-5	-6	27-23		42-9		28-16
	105-25	AN381-1-8	18A-70		42-14		37-52
-2-2	95-23	AN385-50-6	59-7		30-59		74-47
	95-25		52-17	-8R7	44-11	-832R14	18-39
	68-84	AN392-7	21-57	-8R8	45-31	-832R16	97-8
	68-88	-13	95-20		20-89		68-27
	68-104		95-22	-8R12	61-30		18-38
	68-114		68-113	-10R5	27-52	-832R45	66-60
	30-6		68-118	-10R5	57-26	-1032	91-61
	57-38		39-31	AN515B6-5	48-28		87-9
	58-72		74-4		69-20	-4	64-32
	14-36	-15	40-29	AN520-6R4	22-25	-6	64-16
	23-56	-17	66-61	-10-8	16-8	-8	64-31
	14A-35	-29	68-83	-10R6	16-27		65-17
	30-31	-47	95-34	-10R8	88-7	-10	64-38
	31-12	-57	68-87	-10R10	8-25	-1032R5	14-13
	32-10	-71	95-24	-1032R8	89-48		14A-25
	38-32	AN393-7	105-23	-1032R10	2-26	-1032R7	68-93
	39-32		20-82		26-8		42-40
	39-69	-13	32-19	AN520R10-10	26-26	-1032R8	96-3
	41-37		32-9		26-27		96-3
	47-9	-33	91-23	AN525-10R7	26-23		88-32
	52-16		39-70	-10R13	26-29		88-40
	53-15	AN394-17	52-14	-10R14	2-16		15-22
	72-6	-33	20-79	-416R6	8-16	-1032R10	79-3
	72-9	-83	39-31		89-40		88-34
	72-29	AN415-2	19-20	AN526-8R12	90-21		80-8
	72-64	AN415A	20-85	-8R16	82-47		65-29
	73-32		85-13	-10R8	84-7		65-40
	73-37	AN416A	27-4		2-27		38-14
	73-42	AN420-3-10P	68-47		8-26	-1032R16	89-41
	73-45		68-96		56-62		46-8
	75-7	AN486-1	52-13	-428R10	63-36	AN526R832-5	33-9
	76-23	-3	57-34		42-58	AN530-6R4	33-9
	95-35	AN500-8-7	8-17	-428R12	105-34	-6RG	25-18
	32-21		55-26	-632-6R5	89-59	AN545-4R6	37-24
	32-19		2-17	-8R	90-24		37-53
	91-12	AN500A-8-7	34-16	-632R8	37-13	-4R10	37-24
	91-25	AN501-416-6	52-21		37-15		37-53
	97-32	AN502-10-14	54-15		84-3	AN565D6-3	35-8
	95-21	AN503-416-8	29-43	-632R9	26-36	AN565D6H3	34-13
	66-62	-10	3-69	-640R9	26-33	AN731D13	64-36
-2-3	38-3	AN505-6R10	29-59	-832-5	91-40	AN735D20	49-17
	72-58	-8R5	31-11	-832R6	105-6		49-49
	72-68	-10-5	66-6		20-61		49-62
		-632R5					



## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
AN735D30	58-42	AN822-6B	53-6	AN844-12D	58-69	AN911-1	65-26
	58-53	-6D	66-54		49-42	-1D	92-23
AN737-44	49-32	-8D	66-57		50-15	-3	81-37
AN741D13	65-38		49-55	AN848-6D	67-13		82-35
AN742-6C	49-87		67-22	-12D	92-16	-6D	92-7
-14	64-41	AN823-2B	49-39		67-5		92-43
-22	67-35		49-47	AN849-6D	81-30	AN912-1	81-38
AN742D4	42-31		49-71		82-32		49-48
	69-14		49-90	AN882-12D	67-34	-1D	81-16
AN742D6	74-45		82-26	AN884-4-64	81-13		82-10
AN742D6C	36-10	-4D	69-1		82-13	-2	49-69
AN742D7	49-83		69A-1	-6-13	92-48		81-29
AN742D8	81-42		92-22	-6-14	67-10		82-28
	82-44		92-27		67-17	-8	82-38
AN742D14C	58-55	-6	81-45		81-14	-9	58-50
AN742D20	82-41		53-4		82-9		65-27
AN742D32	92-25	-8D	66-56		81-12	-3	82-36
AN749-1-6	66-36		58-75		82-7		81-39
AN755-5	57-28		49-56		58-48	AN916-1D	65-19
-12	49-24		49-59		49-66	-6D	67-21
AN775-4	28-23	AN826-4D	69-3		81-33	AN917-1D	92-19
AN776D-4	28-22		69A-3	-6-128	81-34	-6D	67-27
AN809-1	30-35		66-66	-10	82-24		67-28
AN812-1	30-35	AN832-2D	69-7		66-38		36-1
AN813-1A	30-36	-4D	66-67		66-39	AN922-4D	66-68
AN814-4	27-56	AN833-2D	36-4		81-36	AN924-2D	27-17
AN815-4D	28-20	-4D	36-17		89-6	-4D	36-2
	36-13		89-2		82-22		36-18
	69-10		66-44		58-14		69-8
	69-11	AN837-4D	27-16		92-8		81-31
	69A-7	AN838-6D	92-15		92-39	-6D	89-3
	69A-9	-60	67-19		50-18		82-33
	69A-21	AN840-4D	81-10		50-22		67-14
	66-29		82-12	-12	50-25	-12D	67-6
-8D	65-24	-6D	81-11	-15	49-79	AN929-6	89-4
AN816-2B	66-70		82-8	-16	92-3	AN931-3-5	77-12
-2D	58-77	-8	81-27	-17	92-45		45-5
	64-28		82-37		67-3		42-62
	65-20	-12D	92-6		67-30	-4-7	77-6
	65-32		92-42	-48	49-92		36-16
	43-12	AN842-4D	81-15		50-17	-4S12	69A-10
	81-25		82-11	-73	58-68	-4S12	24-3
	92-18	-6D	81-9	-90	49-37	-4S16	77-21
	69A-15		81-28	-106	49-37	-5-9	89-9
-4-40	64-25		92-11	-117	58-65	-6-10	77-11
-4D	69-2		92-47	-12C	67-33		24-1
	69A-2		82-29	-16-12	93-5	-7-11	77-22
	91-46		67-9		58-62	-8-13	77-13
-8D	66-20		82-6		49-31	-8-13	24-5
	66-21	-12D	92-2	AN900-10	67-42	-8S20	24-2
AN822-2B	58-40		92-38	-20	66-49	-10-14	77-4
	81-26		92-44	AN901-4C	28-24		77-10
	82-27		67-2	-5A	30-36	-12-17	24-4
-2D	64-34		58-66	AN902-4	27-16	-16-22	93-7
	65-22		50-26		27-55		49-34
-4	64-27	AN844-6-172	82-30		36-3	AN935-10	85-11
-4D	49-53	-6D	58-49		2-20		89-43
	92-20		49-68	-5	8-19	-10L	61-32
	92-30	-8	58-13	-8	66-46	AN936A6	29-37
-6B	53-3	-12D	67-32	AN910-1	64-25	AN936A6B	57-27

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
AN936A-8	105-5	AN960-416	18-55	AN960A916L	81-32	B33	78-133
	81-49		14-18		82-34		78-167
	26-34		14-30		67-15		78-168
	37-59		14A-20	AN960A1716	67-8		78-101
	42-10		14A-23	AN960A1716L	67-7		78-103
	42-15		14A-29	AN960C416L	66-10		78-104
	43-6		18A-10	AN960C716	2-44		78-30
	46-9		27-43		8-40		78-32
AN936C-10	29-58		29-44	AN960D416L	29-13	B36	78-190
AN941-4S12	91-58		39-3	AN970-4	77-20		78-191
AN960-3	3-56		70-20	-6	19-11	B47X	68-52
	9-63		70-33	AN2552-3A	94-3	B50	78-133
	5-33	-416L	97-21	AN3021-1	42-56		78-136
	5-38		66-68	-2	89-52	B55	59-4
	11-37		68-91	-8	92-35	B66X	68-74
-6	42-61		68-102	AN3027-2	42-57	B77	78-111
-8	90-22		71-16	AN3106-8S1S	78-145		78-112
-10	7-7		64-22	-14S5S	78-135		78-116
	7-14		18-57	-125-3S	78-108		78-118
	19-		20-86		78-109		78-149
	88-12		18A-12	-35	45-11		78-167
	67-35		27-5	AN4078-1	92-24		78-168
	71-32		28-6	AN5525-1	57-43		78-101
	58-82		30-30	AN6227-7	33-3		78-102
	62-9		41-36		33-3		78-103
	62-19		46-28	-8	35-3		78-104
	62-27		52-15	-10	2-7	B308X	30-58
	13-20		53-8	-25	8-7	B912X	30-27
	14-34		70-14	-33	30-39	BB	78-136
	14A-33		70-34	AN6230-2	27-54		78-149
	29-28		73-11	-3	29-54		78-57
	38-4		74-14	-6	29-55	-2	105-6
	40-25	-516	30-2	AN6260-4-20	27-53	C36	78-150
	49-73		30-9		69-6		78-151
	55-8		30-11		69A-6		78-155
	55-17		53-14	-24 1/2	53-5		105-22
	55-36	-516L	88-30	-34 1/2	53-2		105-31
	70-25		68-78	AN6264-4D10	36-5		78-12
	70-29		23-54	AN6271-4-14	92-21		78-19
	75-15		42-59	AN6290-4	29-62	C50	78-121
	76-10	-616	79-10	AN7502-15	27-22		78-131
	76-22		80-7	AN8232B	58-47		78-19
-10L	104-3		28-28	AR4-1	88-26		78-26
	79-8		29-6		68-53	C71	78-160
	91-24	-616L	28-28		18-15		78-161
	92-26	-716	36-19		18-15		78-12
	68-97		49-16		18-48	C77	78-121
	68-109		49-45		18A-3		78-128
	80-6	-816	97-14		70-7		78-131
	57-37		71-5		70-17		78-155
	61-31		73-5		72-34		78-161
	63-29	-816L	97-15		73-24		78-72
	39-66		68-7		11-34	C192	19-13
	56-25		68-82	-7A	18A-4	CC	105-29
-416	19-		71-6	AR6-1	30-26	CR163C4-4	18A-43
	67-40		73-6	AW5-35	56-15		18A-20
	68-33	-1016	24-9		56-20		18A-42
	71-25		27-2	B33	78-111	-8	18A-19
	71-31	AN960A6	21-57		78-112	DA11875-4	16-60
	30-4	AN960A10	105-24		78-116	E80	58-59

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
E80	49-65	NAS43DD8-8	8-10	NAS383-1	64-23	NAS397-14	82-23
F71	78-63	NAS50-250	27-57		73-9		66-40
	78-97	NAS51-56	30-22	-2	75-28		81-35
	78-98	-181	30-52	-3	72-15	-16	2-22
	78-1	-187	30-53		72-21		8-21
	78-2	NAS143-5C	15-31	NAS395-1-3	90-7		66-33
	78-63		23-55		37-62		66-37
	78-97		29-19	-6-3	20-21	-17-3	84-6
	78-98		30-8		20-25	-18	92-4
	78-1	-6C	28-26		20-26		92-9
	78-2		28-28		20-29		92-40
GA5-375	56-8	-8C	2-6		20-31		92-46
	56-15		8-6		20-32		67-4
	56-20	NAS145-14	15-29		20-49		67-26
H4600-032-064	21-6	-18	15-30		21-71		67-31
JV5	75-11	NAS145A48	30-7		21-74		57-31
K5A	68-54		23-52		21-75	-59	48-29
K6 x 5/8	75-12	NAS146DH25	28-25		22-7		49-43
K12A	95-4	NAS146DH28	28-27	-12-3	9-70		50-16
	68-66	NAS147-31	2-47		30-60		50-19
KS4	17-20	NAS174-31	8-43	-59	48-30		50-21
	18-47	NAS178-6-6	20-42	-13-3	21-49		50-24
	8A-2	-4	22-26		39-49	-22	93-6
	70-6	-5	22-27	-14-3	91-50	-32-3	46-14
	72-35	-6	22-28		95-10	-32P	4-7
MS28741-40100	28-21	-8-7	3-60		95-12		10-7
NAF1091-1-60	45-20	-8-8	3-60		68-3		62-29
	42-36	-8-9	3-60		68-11		55-27
	83-2	-8-6	20-41		68-71	NAS397D14	58-15
NAS36	7-11	-12-49	20-36		16-15	NAS397D18	58-67
	13-17	-12-48	20-37		21-67		58-70
NAS41-2-100	91-30	-12-51	20-38		40-38	NAS397D22	58-64
-1000	38-34	-12-52	20-39		45-4	NAS398-50P	62-35
	39-68	NAS179-6	20-42		46-24		55-24
	91-31		22-26		49-89	-53P	62-22
	39-67		22-27	-17-3	2-53		55-13
	38-33		22-28		2-62	-62P	55-23
NAS42-6-8	32-22		3-60		8-49	-64P	62-32
NAS42C4-8	38-29		20-41		8-60	-75P	62-21
-2	38-30	-12	20-39		13-9		55-20
NAS43-3-12	32-19	NAS221-8	40-16	-18-3	61-8	NAS434-8D	66-30
-8	85-10	NAS288-35LH	95-17		61-13		66-35
-28	67-35		68-111		61-20	NAS434D2	77-7
-15	67-37		95-18		61-25	NAS434D4	58-25
-42	57-4		68-112	-18	49-80		58-29
-42	57-11		68-117	-23-3	25-5		49-26
-9	57-21		74-3	-24-3	49-28		69-15
	57-25	NAS295-5	52-5	-28-3	2-58		69A-11
	58-88	NAS296-4A	3-54		8-56	NAS434D7	58-43
-42	48-5		9-61	NAS396-1A3	91-5		58-44
	48-11		13-25	NAS397-10	81-17		58-52
-9	48-24		16-29		82-14		49-81
4-120	70-21		5-36		81-40	NAS434D8	82-43
5-16	68-75		7-20	-12	89-7		58-17
NAS43C4-28	40-14	NAS343D5	68-36		92-13		58-24
-24	41-12	NAS382-1	20-86		92-49		58-28
-27	41-14	NAS383-1	97-19		82-31		49-25
6-8	95-33		71-14		67-11	NAS434D12	81-41
NAS43DD6-16	19-9		71-23		67-18		82-40
NAS43DD8-8	2-10		71-29		58-51		49-76
					49-67		

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
NAS434D14	58-22	NAS446-4-3	36-11	PK76XZ8-6	95-14	PK76XZ8-8	66-71
NAS434D32	58-18		44-6		84-5		8-48
NAS435-2D	49-50		24-1		66-52		8-59
-4D	36-14		24-2		68-5		105-8
-8D	49-63		24-3		68-30		89-13
NAS435D4	91-56		24-4		68-37		89-26
	77-24		24-5		44-5		89-37
	46-33		24-6		26-29		91-57
	49-18	NAS451-33	21-92		2-39		82-45
-6	77-9	NAS455-4-2	9-27		3-65	-10	74-39
-7	77-8		9-37		9-70		49-64
-8	66-52	-163-4-8	18-20		13-7		49-27
-14	77-23	NAS488-1-3	25-13		13-8		42-37
NAS444-1-3	21-73	P4C	18-13		13-9		83-3
-2	12-31	PK74XZ6-6	19-1		24-2	PK76XZ9-10	49-88
	6-33		19-2		24-3	PK76XZ10-6	58-23
-2-3	22-22		19-3		24-4		105-20
-4	89-38		19-4		24-5	-8	8-55
-4-3	21-69	PK76XZ4-4	43-16		24-6		81-43
-5	7-2		37-74		27-10		82-42
	7-3		38-7		28-11		58-20
-5-3	20-4		37-21		36-12		25-20
	20-8		37-27		36-15		2-57
	20-18		37-41		36-21		49-77
	20-19		37-54		24-1	PK77XZ6-4	65-39
	20-21		89-18		39-22	PK79XZ8-8	39-30
	89-14		91-34		42-5	PK86XZ4-6	37-53
	89-21		68-63		46-12	PK86XZ6-8	37-56
	89-28		37-19		46-29		37-72
	13-7		68-64		50-12	PKAL77XZ6-4	64-42
	13-8		41-17		64-30	PK148-632-10	2-34
	21-31		90-6	-7	40-37		8-33
-5-3	21-49		64-40	-8	69-16	PM40	93-9
-5	21-68		64-41		69A-11	PM3A	18-37
-14-3	23-24		37-62		49-84		18A-65
NAS445-2	21-7	PK76XZ6-4	39-11		49-51	PSM2	77-31
	12-32		102-8		49-19		42-64
	6-34		102-13		46-34		90-8
-4	64-15		8-35		37-6	PSM2N	84-9
-5	25-4		68-12		37-37	PSM5	77-30
-163-4-8	17-5		64-15		37-55		42-65
NAS446-2	18-12		65-10		40-6	PSM10	77-29
	65-10		2-36		16-14		42-66
	66-36		37-69		2-52	PSM15	42-67
-3	102-9		42-32		2-61		77-28
	102-14		74-46		58-19		64-5
	105-17		75-19		58-26	PSM25	89-56
	89-51		75-23		58-30		77-27
	37-12		37-12		58-45		42-68
	74-47		37-61		58-54		77-26
	75-20		66-36		61-9	PSM40	42-69
	75-24		105-16		61-14		90-1
-4	42-38		89-50		61-21	R3M	105-7
	50-13		37-76		61-26	RA863	
	74-40	PK76XZ8-5	88-39		66-31	RL15-4A	51-29
	105-9	-6	7-2		66-36	-5	51-27
	83-4		7-3		77-7	-6	51-25
	66-41		8-5		77-8	-7	51-20
-4-3	26-29		90-20		77-8	-8	51-7
			91-51		77-9	-9	51-28
					77-23	-10	51-28
					77-24		

## ILLUSTRATED PARTS CATALOG

## NUMERICAL INDEX

PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.	PARTS NUMBER	FIGURE AND INDEX NO.
RL15-11	51-21						
-13	51-18						
-14	51-19						
-15	51-23						
-16	51-24						
-17	51-22						
-21	51-26						
-25	51-28						
-33	51-13						
-36	51-14						
-37	51-5						
-38	51-17						
-45	51-12						
-59	51-10						
-60	51-11						
-61	51-16						
-63	51-3						
-64	51-4						
-65	51-6						
RL15E	51-						
RL15ESA1	51-1						
RL15ESA2	51-2						
RL15F	51-7						
RL15FSA1	51-8						
RL15FSA2	51-9						
S4-26	61-33						
	54-10						
S5-200	21-63						
	56-6						
	56-12						
S51-6-13	92-12						
SIK15	17-14						
T118	77-7						
V3-1	75-10						
Vulcalock	100-1						
XL3-12	89-58						
-13	89-57						