

# OWNER'S HANDBOOK

## AIRCRAFT 025 ON SPARE PARTS SPECIAL MAINTENANCE INSTRUCTIONS

6-23-46

# CANUCK

FLEET AIRCRAFT ... FORT ERIE, CANADA

## SPECIAL MAINTENANCE INSTRUCTIONS

### Fuel System

The fuel injector pump circulates gasoline continuously from the tank through the injector and back to the tank, providing an ample flow of gasoline to the engine, but also preventing dirt in the system from settling out, and increasing the possibilities of leakage.

Strainers should be cleaned regularly. If leaks cannot be stopped by tightening the sleeve nuts to 112 inch pounds, the parts should be replaced. Do not use sealing compounds.

The gasoline return line to the tank enters the bottom of the tank, through a tube inside the tank, to empty near the top of the tank. A flow of gasoline from the return line when disconnected indicates a crack in the tube inside the tank, which should be repaired on overhaul.

### Landing Gear

The wheels are magnesium alloy, which corrodes easily if the finish is damaged. Worn spots, cracks, scratches and chips must be refinished, using zinc chromate primer, or aluminium pigment paste in lacquer thinner (10 pounds to 3 gallons.)

Bleeding brakes is accomplished by filling the pedal cylinders, removing the bleed screw at the wheel. As the level in the cylinder goes down, replace the screw and refill. Repeat until no air bubbles appear. It is difficult to add fluid continuously during bleeding without introducing air into the cylinders.

The brakes have no adjustment, and require no adjustment.

To replace brake linings, remove the wheel. Slide the brake ring clear and the linings can be slipped out and replaced.

**DO NOT DISSASSEMBLE THE CYLINDER.** If the cylinder must be taken apart, it can be done with a small arbour press, but the rubber sealing rings will be damaged and will require replacement on re-assembly.

To replace Aero Rings, jack wheel clear of ground. Remove center floor panel - this will save time, as it is difficult to replace the rings from the bottom, and it will make it easier to install the rings without damaging them. Slip ring on the front fitting first, then use a large screwdriver to pry over the rear fitting. Run succeeding rings in the centre of those already on.

## ENGINE MAINTENANCE

For engine maintenance, refer to the Continental Operators Handbook, included with this handbook.

## FUEL INJECTION

The fuel injector is an Excello Model A41. All rotating parts of the pump are lubricated by oil taken from the engine pressure lubricating system.

Clean sediment bowl regularly.

Except for the engine idle speed adjusting screw at the bottom of the air throttle valve, no adjustments to the injector or linkage should be attempted except by licensed mechanics or experienced operators. Adjustment of the linkage will most likely be necessary after the engine has been operated 40 or 50 hours, or if the aircraft is operated under much different atmospheric conditions, or if the propeller is changed, or if a new pump is installed. In case of unsatisfactory engine performance it is advisable to check spark plugs, fuel pressure, magnetos and injection nozzles before adjusting the injector linkage.

The linkage between the air valve and the injector valve is adjusted until the engine will respond immediately and smoothly when the throttle is opened quickly. Lock the nuts on the linkage. Set the idle air adjustment stop screw for approximately 650 R.P.M. Adjust idle adjustment screw at the bottom of the air throttle valve to obtain smoothest engine operation - not highest speed. Reset idle air adjustment stop screw for approximately 650 R.P.M. Set full throttle stop screw at top R.P.M.

Increasing length of link is enriching mixture.

## NOZZLES

Clean outside of nozzle in gasoline and dry with air. Remove snap ring and valve. Clean, oil and replace nozzle in valve, using a wooden stick to move valve back and forth in nozzle. Remove again, clean, and replace. If valve is still sticky in operation, the nozzle must be replaced.

If air can be sucked thru the nozzle from either end it should be replaced.

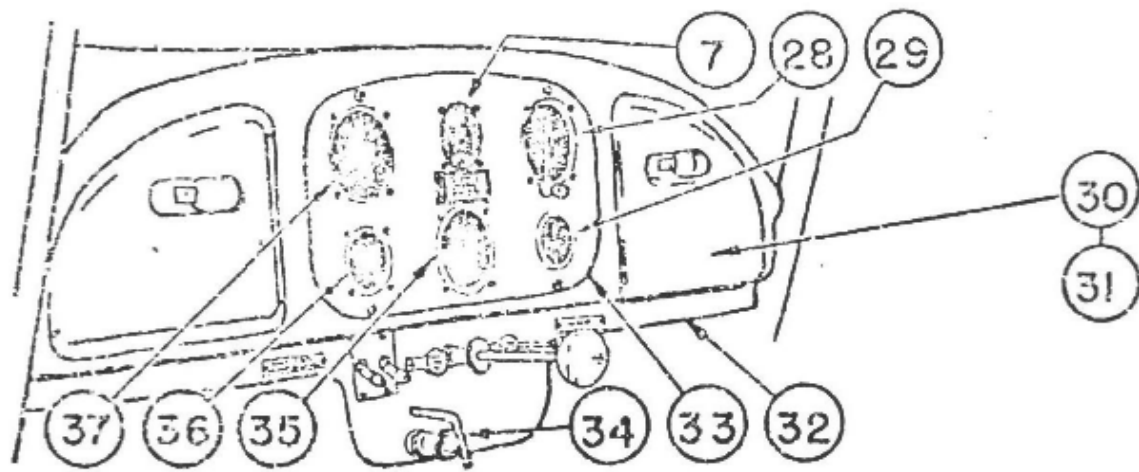
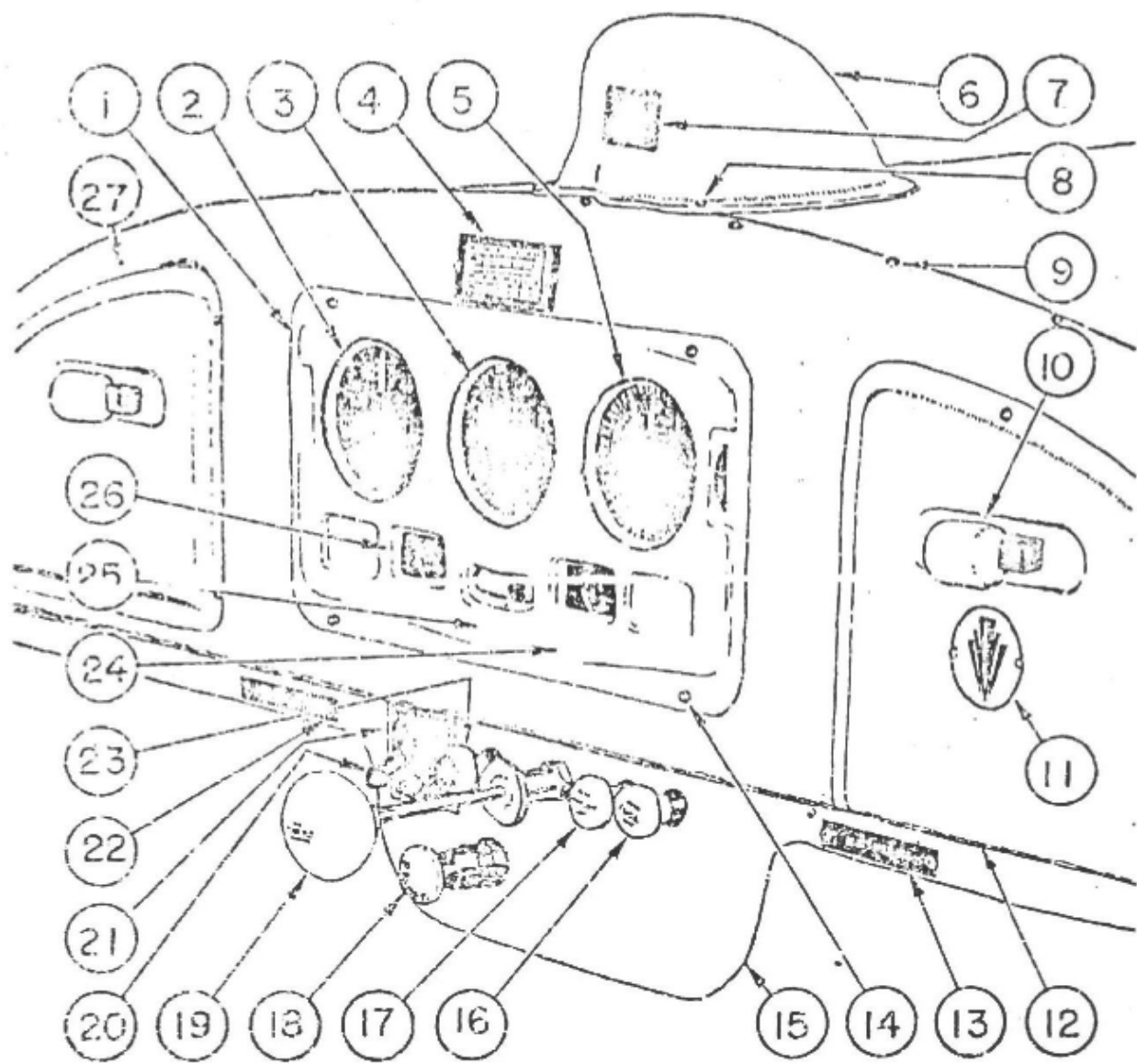
## TROUBLE SHOOTING

Leaking nozzles will cause poor acceleration and missing after a long glide.

Sticking nozzles will cause missing and rough running at engine speeds up to 1500 R.P.M., clearing up higher R.P.M. Sticking nozzles also cause hard starting.

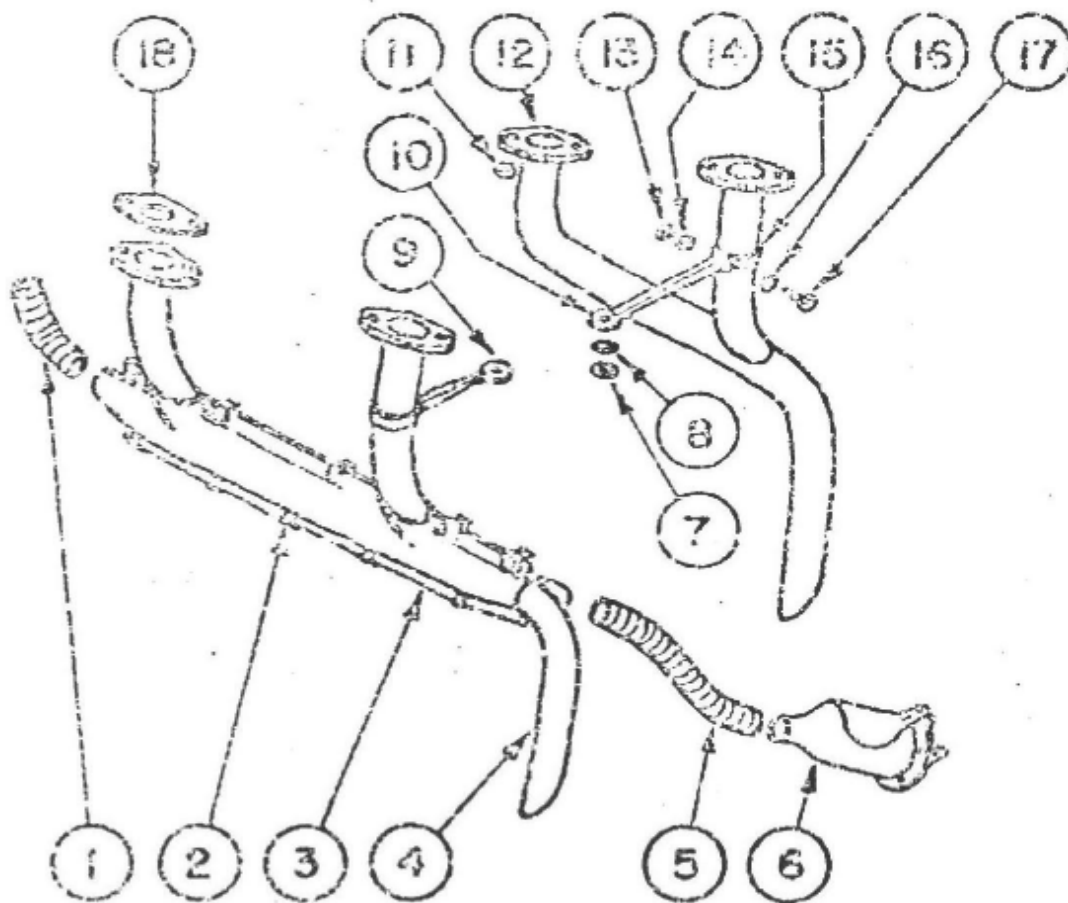
Leakage at the injection line connections will cause rough running and missing.

Incorrect linkage adjustment results in too lean or too rich mixture and poor acceleration, rough running and overheating.



## CABIN INTERIOR

1.	80-2071-104	Panel Assembly with Instruments
2.	14A02	Airspeed - Pioneer
3.	22A04	Tachometer - Pioneer
4.		Compass Card Holder - Kollsman
5.	15A02	Altimeter - Pioneer
6.	80-2071-3620	Compass cover
7.	814B	Compass - Kollsman
	80-2071-3610	Bracket - Compass
8.	AN530-4R4	Screw - Cover
9.	AN530-6R8	Screw - Deck
	1181-M1	Nut - Deck
10.	#26	Knob - Doors -Cluthe
11.	80-0130	Emblem
12.	80-2071-221	Door Glove Compartment
13.	80-0350	Name Plate - No Smoking
14.	AN515-6R8	Screw
	AN365-632	Nut
15.	80-2071-222	Bulkhead
16.	80-2071-320	Control - Fuel Shut Off
		Knob - Fuel Shut Off
17.	80-2071-350	Control - Cabin Heat
		Knob - Cabin Heat
18.	#4046	Primer - Parker
19.	80-2071-310	Control - Throttle
		Knob - Throttle
20.	827K3	Switch - Ignition Cutler Hammer
21.	80-2071-1400	Name Plate - Ignition
22.	80-0330	Placard - Performance Limits
23.	80-2071-340	Control - Parking Brake
		Knob - Parking Brake
24.	24A06	Gauge - Oil Temperature Pioneer
25.	71A01	Inclinometer - Pioneer
26.	24A02	Gauge - Oil Pressure Pioneer
27.	80-2071-230	Cover - Panel Compartment
28.	127K02	Altimeter Kollsman
29.	442247	Gauge - Oil Temperature Stewart Warner
30.	80-2071-220	Door - Glove Compartment
31.	80-2071-250	Spring - Glove Door
32.	80-2071-200	Bulkhead
33.	80-2071-110	Panel
34.	#1664	Primer - Lunkenheimer
35.	218-01	Tachometer - Kollsman
36.	444103	Gauge Oil Pressure Stewart Warner
37.	657K06	Airspeed Kollsman

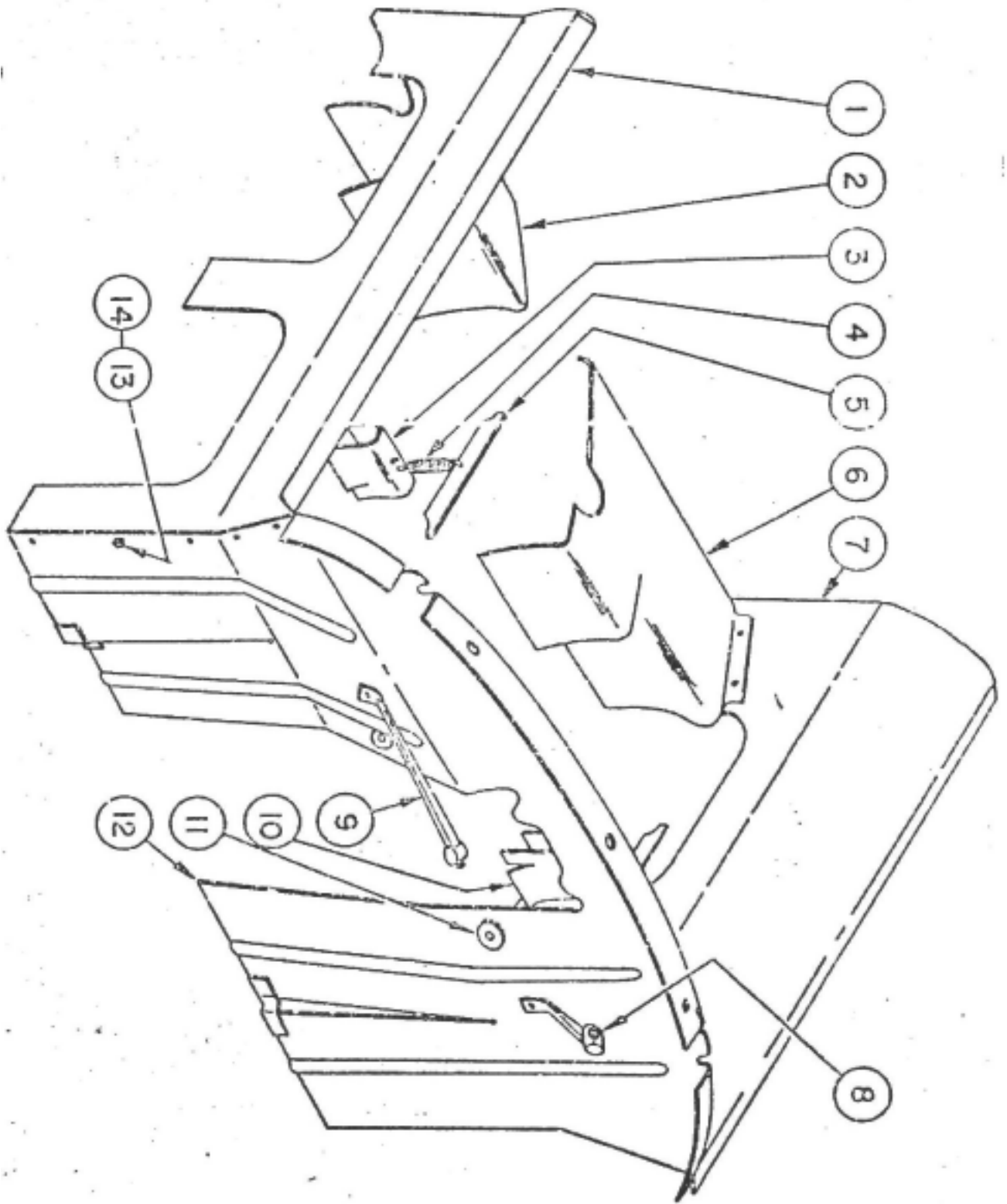


EXHAUST MANIFOLDS, CABIN HEATER

- |     |             |                    |
|-----|-------------|--------------------|
| 1.  | 80-5170-210 | Hose               |
| 2.  | 80-0630     | Clip               |
| 3.  | 80-5170-100 | Muff - Heater      |
| 4.  | 80-5191-100 | Manifold Left      |
| 5.  | 80-5170-220 | Hose Heater        |
| 6.  | 80-2073-100 | Box Heater         |
| 7.  | AN315-5R    | Nut                |
| 8.  | AN935-516   | Lockwasher         |
| 9.  | 80-5191-310 | Brace - Left Side  |
| 10. | 80-5191-320 | Brace - Right Side |
| 11. | AN315-5R    | Nut                |
| 12. | 80-5191-200 | Manifold Right     |
| 13. | AN315-3R    | Nut                |
| 14. | AN935-10    | Lockwasher         |
| 15. | 80-5191-400 | Clamp              |
| 16. | AN970-3     | Washer             |
| 17. | AN3-5       | Bolt               |
| 18. | 21493       | Gasket             |

ENGINE BAFFLES

- |     |              |                        |
|-----|--------------|------------------------|
| 1.  | 80-5181-400  | Left Baffle            |
| 2.  | 80-5161-100  | Front Baffle           |
| 3.  | 80-5181-600  | Centre Baffle          |
| 4.  | 80-5181-800  | Spring                 |
| 5.  | 80-5181-700  | Bracket                |
| 6.  | 80-5181-200  | Front Baffle           |
| 7.  | 80-5181-500  | Right Baffle           |
| 8.  | 80-5000-1000 | Bracket - Right Baffle |
| 9.  | 80-5000-900  | Bracket - Left Baffle  |
| 10. | 80-5181-600  | Center Baffle          |
| 11. | AN931-10-14  | Grommet                |
| 12. | 80-5181-300  | Rear Baffle            |
| 13. | AN520-10?6   | Screw                  |
| 14. | AN365-1032   | NUT                    |



## CONTROLS

1. 80-2121-840 Clamp - Tub Control
2. Q3111-02 Nut
3. 80-2121-770 Plate - Tab Control Direction
4. 80-2121-710 Base - Tab Control
5. 80-2121-740 Barrel
6. 80-2121-730 Screw - Actuating
7. 80-2121-720 Lever - Tab Control
8. 80-2121-1000 Tab Control - Teleflex
9. 80-2121-810 Indicator - Tab Control
10. 80-2121-820 Scale - Tab Control
11. 80-2121-830 Block - Tab Control Support
12. 80-0310 Clamp - Tab Control
13. 80-0150 Safety - Pin
14. 80-2121-750 Pin - Tab Control
15. AN3-13 Bolt - 3/16
16. 80-2121-310 Stick
17. 80-2121-361 Socket - Stick
18. 80-2121-910 Cable - Aileron Circuit
19. AN393-15 Pin - (All Cable Ends)
20. 80-2121-760 Handle - Tab Control
21. 80-2121-090 Bearing - Clevis
22. AN4-12 Bolt - 1/4
23. AN4-14 Bolt - 1/4
24. 80-2121-180 Bearing Bellcrank
25. 80-2121-150 Push-Pull Right
26. 80-2121-130 Bellcrank
27. AN4-10 Bolt - 1/4
28. AN4-6 Bolt - 1/4
29. 80-2121-170 Pedal - Copilots
30. AN3-12 Bolt - 3/16
31. 80-2121-120 Pedal Hanger - Right
32. AN815-3D Nipple - Brake Line
33. 80-2124-200 Brake Line
34. 80-2124-120 Parking Brake Valve
35. AN3-25 Bolt - 3/16
36. AN822-3D Elbow - Brake Valve
37. 80-2121-110 Pedal Hanger - Left
38. AN6260-3-14 Flexible Hose
39. 80-2124-110 Lever - Parking Brake
40. AN816-3D Elbow - Brake Cylinder
41. AN392-11 Pin - Brake Valve
42. AN3-5 Bolt - 3/16
43. Brake Cylinder (Scott) (See Following Pages)

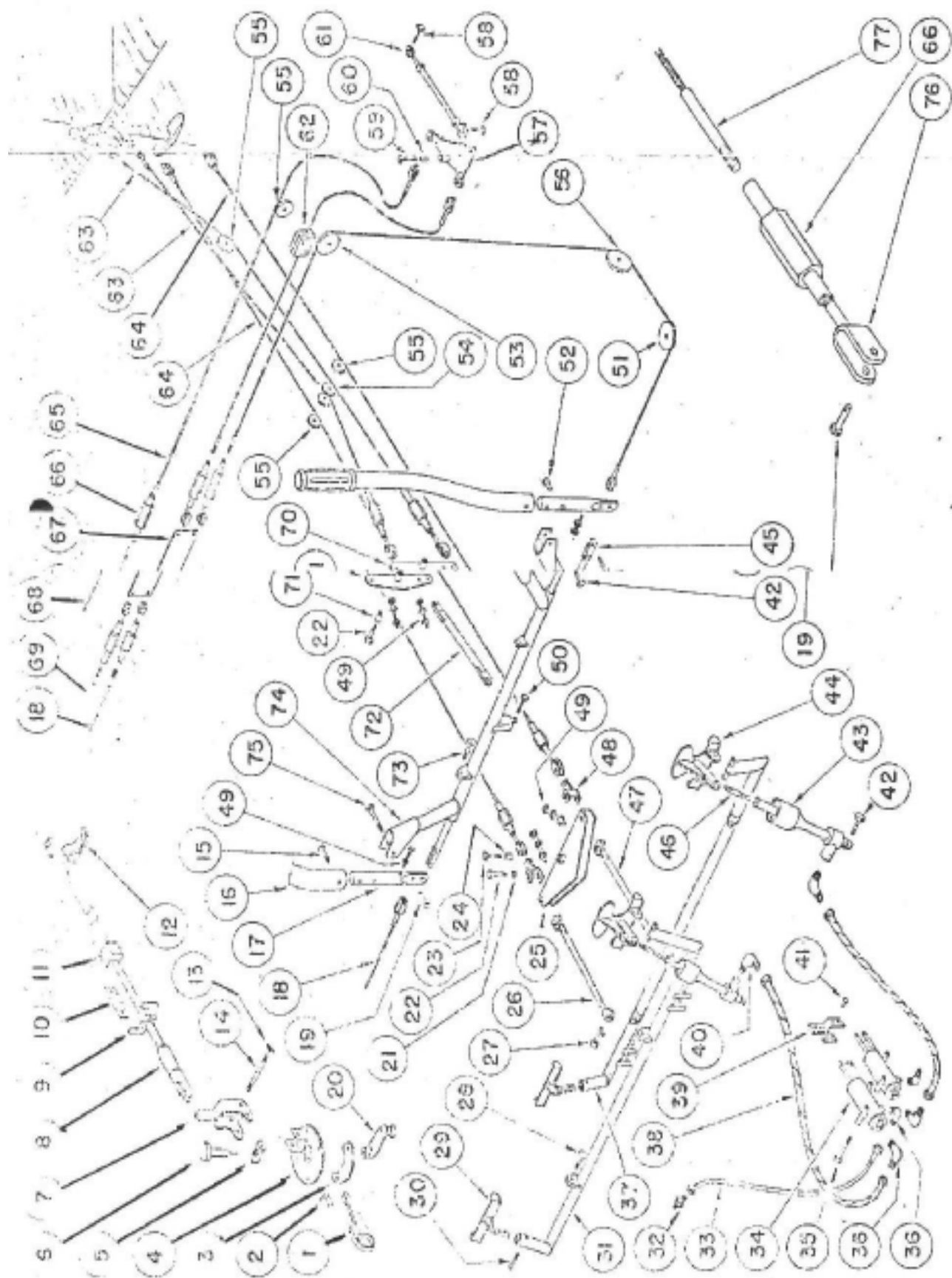
Notes : If D-1006 replaces 80-2121-190 (Built Up Pedal used on Aircraft 002 - 067), 80-2121-081 is required in place of 80-2121-080 adjustment screw.

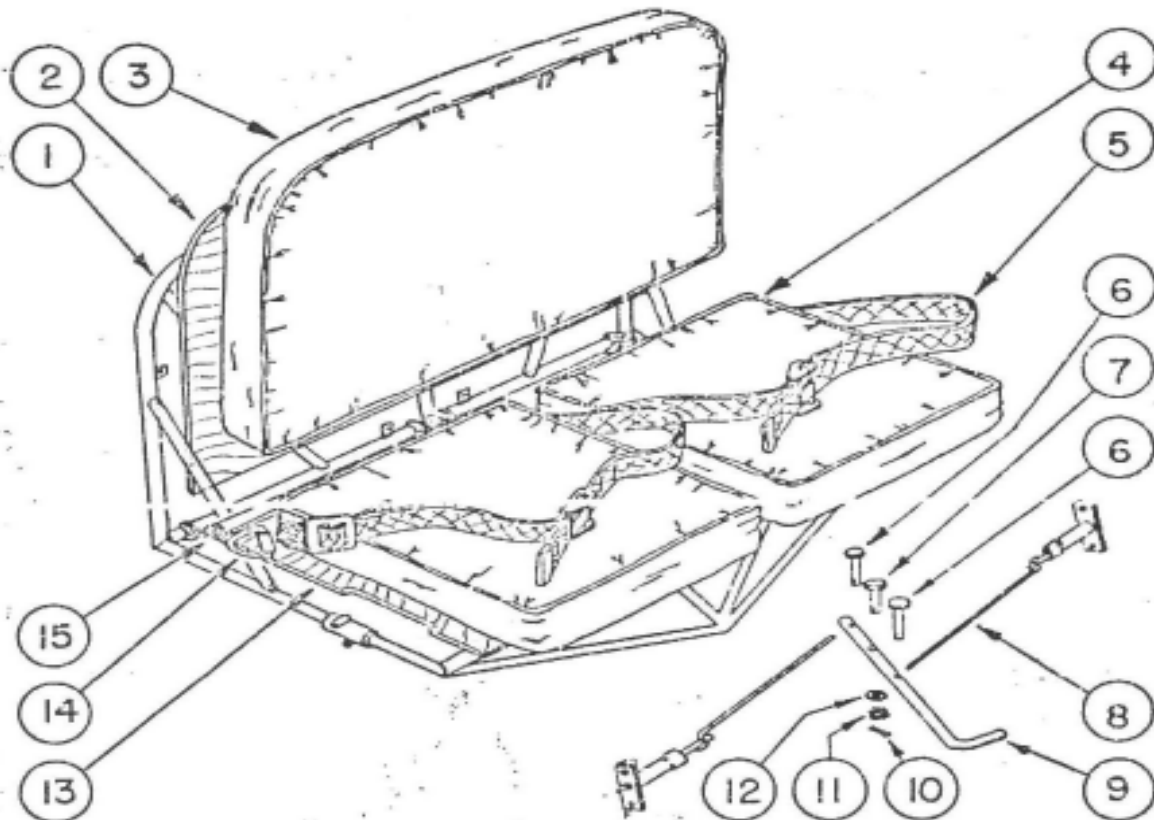


CONTROLS (continued)

44.	D-1006	Pedal - Pilots (Note)
45.	80-2121-330	Push-Pull Sticks
46.	80-2121-080	Adjusting Screw - Brake Pedals (002-067)
	80-2121-081	Adjusting Screw - Brake Pedals (068- ON)
	AN316-4R	Locknut
47.	80-2121-160	Push-Pull - Left
48.	80-2121-141	Clevis
49.	80-0140	Bolt - Control Stop
	AN315-3R	Nut
50.	AN3-4	Bolt - 3/16
51.	AN210-4A	Pulley
	AN4-10	Bolt - 1/4
52.	80-2121-390	Bearing - Sticks
53.	AN210-3A	Pulley
	AN4-10	Bolt - 1/4
54.	AN210-3A	Pulley
	AN4-13	Bolt - 1/4
55.	AN210-3A	Pulley
	AN4-7	Bolt
56.	AN210-4A	Pulley
	AN4-24	Bolt
57.	80-3217-202L	Bellcrank - Left Wing
	80-3217-202R	Bellcrank - Right Wing
58.	AN3-10	Bolt - 3/16
59.	AN6-22	Bolt - 3/8
60.	80-3217-300	Bearing - Bellcrank
61.	80-3910	Control Rod - Aileron
62.	80-2121-1100L	Fairlead - Aileron Cable
	80-2121-1100R	Fairlead - Aileron Cable
63.	80-2121-920	Cable - Elevator Control
64.	80-2121-930	Cable - Rudder Control
65.	80-3221-110	Cable - Wings Interconnecting Left
66.	AN155-32L	Turnbuckle - Barrel
67.	80-2121-200	Balance Plate
68.	80-3221-120	Cable - Wings Interconnecting Right
69.	80-3221-130	Cable - Aileron Control
70.	80-2121-400	Bellcrank - Elevator
71.	80-2121-600	Bushing - Bellcrank
72.	80-2121-500	Push-Pull Elevator
73.	AN4-5	Bolt - 1/4
74.	80-2121-320	Torque Tube - Sticks
75.	AN4-17	Bolt - 1/4
76.	AN161-22LL	Fork Turnbuckle
77.		Cable assemblies

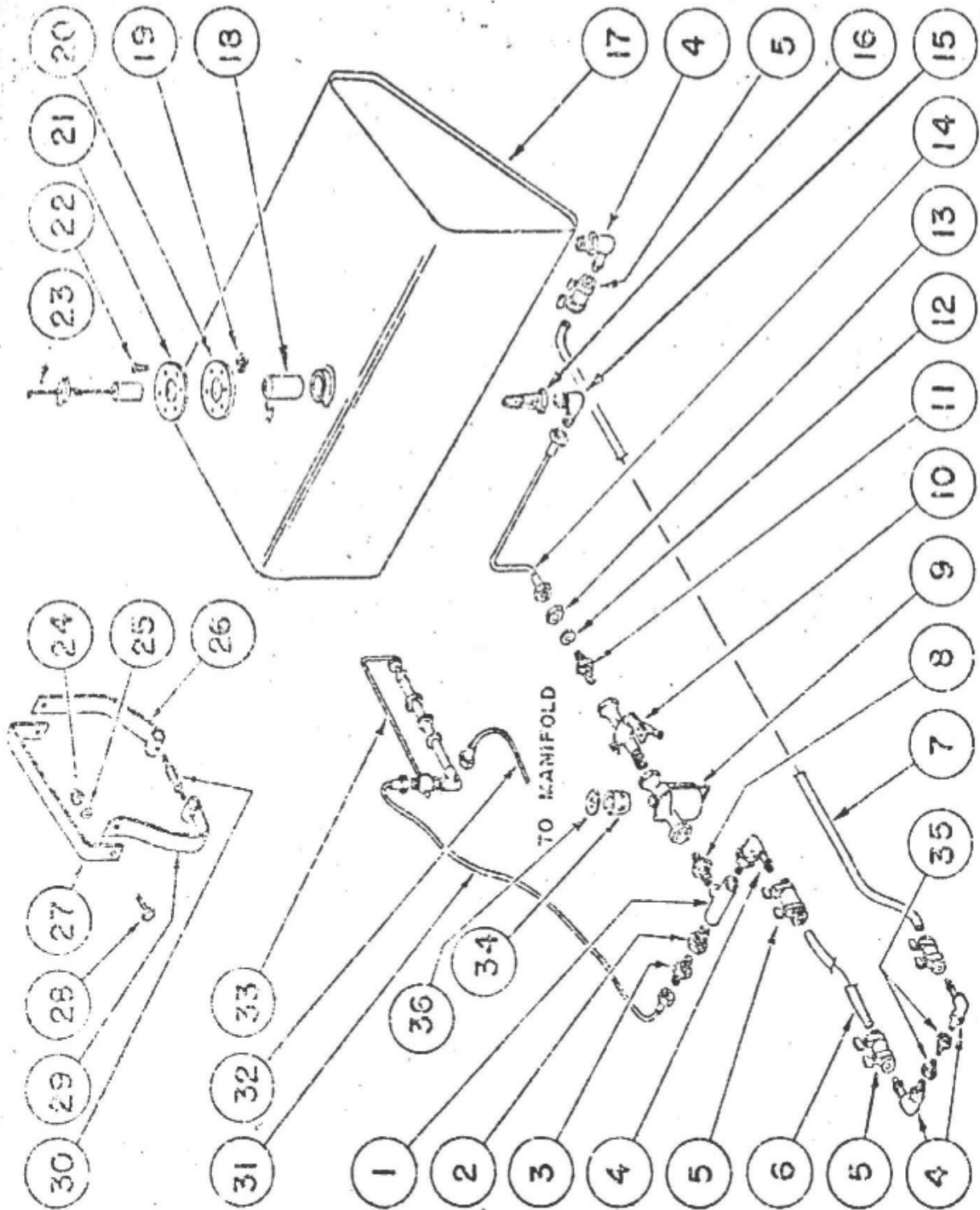
Notes : If D-1006 replaces 80-2121-190 (Built Up Pedal used on Aircraft 002 - 067), 80-2121-081 is required in place of 80-2121-080 adjustment screw.





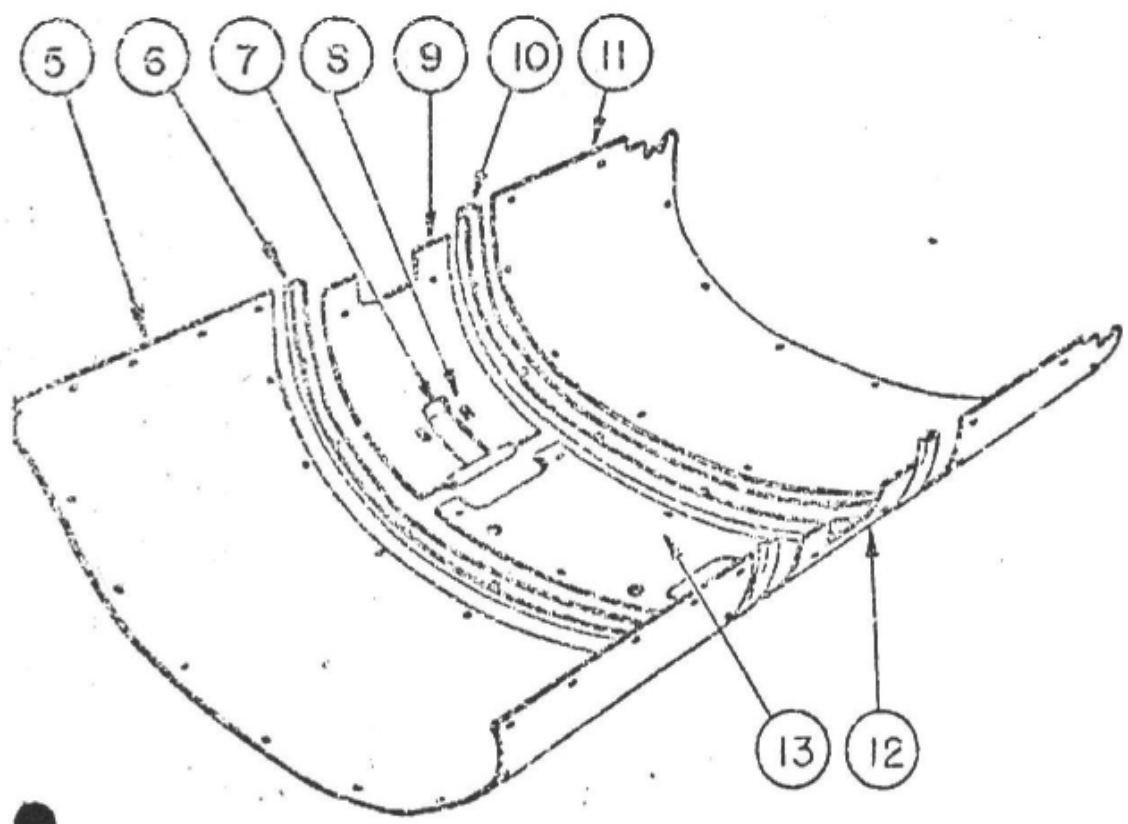
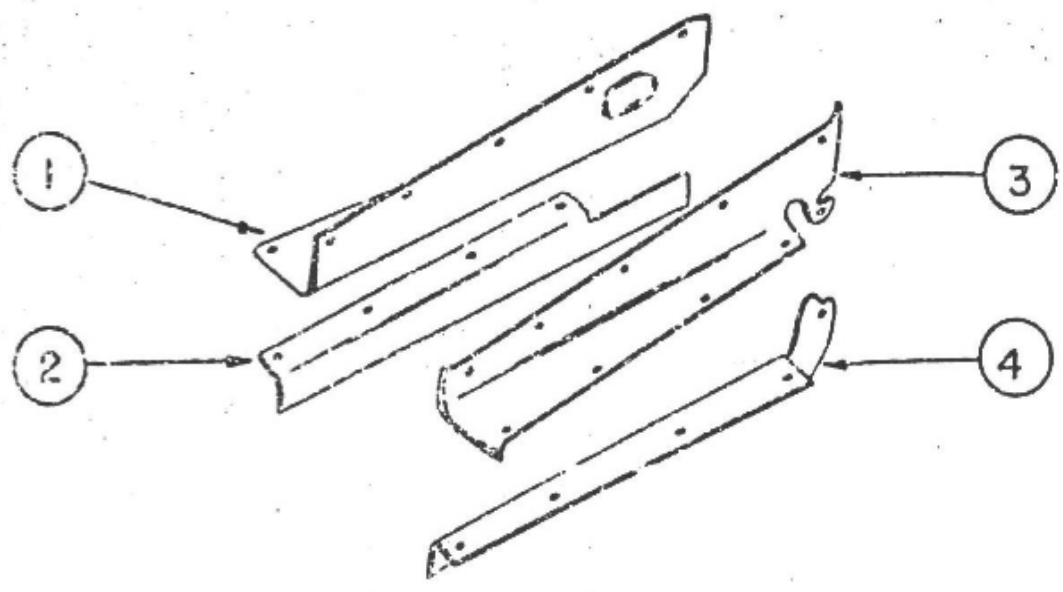
### SEAT INSTALLATION

- |     |             |                               |
|-----|-------------|-------------------------------|
| 1.  | 80-2072-310 | Seat - Weld Assembly          |
| 2.  |             | Seat Back - 1/4 Inch Plywood. |
| 3.  | 80-2072-200 | Cushion - Seat Back           |
| 4.  | 80-2072-100 | Cushion - Seat                |
| 5.  | M-264       | Safety Belt                   |
| 6.  | AN395-19    | Pin                           |
| 7.  | AN4-15      | Bolt                          |
| 8.  | 80-2072-500 | Lock Assembly                 |
| 9.  | 80-2072-600 | Handle                        |
| 10. | AN380-2-2   | Cotter                        |
| 11. | AN310-4     | Nut                           |
| 12. | AN960-416   | Washer                        |
| 13. |             | Seat - 1/4 inch Plywood       |
| 14. | 80-2072-400 | Ring - Safety Belt            |
| 15. | AN115-21    | Shackle - Seat Belt           |
|     | AN3-5       | Bolt - Shackle                |
|     | AN310-3     | Nut - Shackle                 |
|     | AN380-2-2   | Cotter                        |



## FUEL SYSTEM

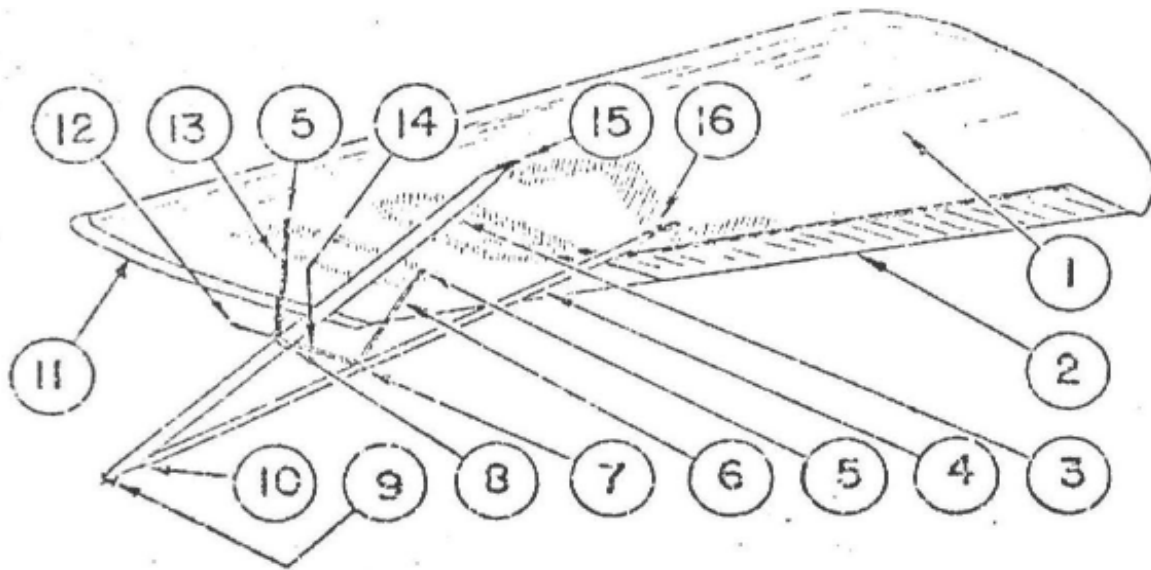
1.	AN917-2D	Tee
2.	AN912-1D	Reducer
3.	AN780-2	Nipple
4.	AN842-6D	Adaptor
5.	AN884-6-24	Hose
	F B C - 4	Clamp
6.	80-5000-1	Tube
7.	80-5000-2	Tube
8.	AN911-2D	Nipple
9.	446S	Carter Filter
	23A16	Carter Gasket
		Carter Bowl
10.	80-2131-1101	Shut Off Valve
11.	80-2131-600	Nipple
12.	AN960-01016	Washer
13.	AN924-6D	Locknut
14.	80-21310500	Tube
15.	AN822-6D	Elbow
16.	80-2131-800	Strainer
17.	80-2131-100	Tank (With Neck, Cap, Gauge)
18.	80-2131-110	Filler Neck
19.	6052-6Z	Speednut
20.	80-2131-700	Gasket
21.	80-2131-900	Ring
22.	AN530-6R6	Screw
23.	80-2131-140	Cap
	80-2131-130	Gauge
24.	AN365-1032	Stopnut
25.	AN960-10	Washer
26.	80-2131-210R	Strap
27.	80-2131-220	Strap
28.	AN3-3A	Bolt
29.	80-2131-210L	Strap
30.	80-2131-230	Turnbuckle
31.	80-2131-1510	Tube
32.	80-2131-1520	Tube
33.	4046	Primer - Parker
34.	23-27	Ceramic Filter
35.	3204x4	Nipple - Injector - Weatherhead
36.	23A16	Gasket - Filter



## FAIRINGS

1.	80-2021-301	Fairing - Tail Upper - R.H.
2.	80-2021-401	Fairing - Tail Lower - R.H.
3.	80-2021-601	Fairing - Tail Upper - L.H.
4.	80-2021-501	Fairing - Tail Lower - L.H.
5.	80-2015-000	Cowl - Bottom Front
6.	80-2012-620	Bulkhead - Fuselage Fairing
7.	80-2023-000	Cover - Landing Gear Center
8.	#8 x 3/8 Z-S	P.K. Screw
9.	80-2022-000R	Cowl - Landing Gear Side Right
10.	80-2012-630	Bulkhead - Fuselage Fairing
11.	80-2016-001	Cowl - Bottom Rear
12.	80-2022-000L	Cowl - Landing Gear Side Left
13.	80-2021-000	Cowl - Landing Gear Center

Bottom cowling panels are supplied undrilled and oversize to allow for trimming on assembly.



## WINGS

When wings or main struts are replaced, the wing incidence at the strut is checked to the same angle as the root rib, which is fixed by the fuselage.

In removing the wing or struts, do not disconnect the pitot head from the pitot lines. The coupling is a compression type and semi permanent. Pitot lines are drained by disconnecting the union under the instrument panel and blowing thru. Do not blow thru the instruments.

Aileron Travel up 23deg. Down 14deg. (Measured from drooped position) Droop is 1/2 inch at trailing edge.

- |    |            |                                                              |
|----|------------|--------------------------------------------------------------|
| 1. | 80-9202L   | Wing - Wired (Less Lights, Less Aileron, With Cables) Left.  |
|    | 80-9202R   | Wing - Wired (Less Lights, Less Aileron, With Cables) Right. |
|    | AN6-20     | Bolt - Wing Foot Front.                                      |
|    | AN960-616  | Washer                                                       |
|    | AN310-6    | Nut                                                          |
|    | AN380-3-3  | Cotter                                                       |
|    | AN5-16     | Bolt -Wing Foot rear                                         |
|    | AN960-516  | Washer                                                       |
|    | AN310-5    | Nut                                                          |
|    | AN380-2-2  | Cotter                                                       |
|    |            |                                                              |
| 2. | 80-3300L   | Aileron Left                                                 |
|    | 80-3300R   | Aileron Right                                                |
|    | AN4-12     | Bolt - Aileron Inboard Hinge                                 |
|    | AN960-416L | Washer                                                       |
|    | AN960-416  | Washer (Between Hinge)                                       |
|    | AN310-4    | Nut                                                          |
|    | AN380-2-2  | Cotter                                                       |
|    | AN345      | Bolt Outboard & Center Hinge                                 |
|    | AN960-10   | Washer                                                       |
|    | AN310-3    | Nut                                                          |
|    | AN380-2-2  | Cotter                                                       |



3. 80-3511-301L 80-3511-301R	Front Strut - Left Front Strut - Right	11. 80-3610L 80-3610R 80-3620L 80-3620R D-1007-65	Gap Fairing - Top Left Gap Fairing - Top Left Gap Fairing Bottom Left Gap Fairing Bottom Right Rubber Channel - Gap Fairing Bottom
4. 80-3511-10 80-3511-200	Rear Strut (With Eyebolt) Eyebolt - Left Strut		
5. AN3-11 AN960-10 AN310-3 AN380-2-2	Bolt - Jury Struts Top Washer Nut Cotter	12. 80-8110 80-8120 832 x 3/16 AN815-3D AN520-10R16 AN365-1032	Pitot Head Spoiler - Pitot Head Allen Screw - Spoiler Union - Pitot Lines Screw - Pitot Head Nut
6. 80-3522-000L 80-3522-000R	Strut - Rear Jury Left Strut - Rear Jury Right		
7. 80-3525-000 AN42-12 AN960-10 AN310-3 AN380-2-2	Clamp - Rear Jury Eyebolt - Jury Bottom Washer Nut Cotter	13. 80-3521-000L 80-3521-000R	Strut - Jury Front Left Strut - Jury Front Right
8. 80-3524-000 AN42-12 AN960-10 AN310-3 AN380-2-2	Clamp - Jury Front (037 ON) Eyebolt - Jury Bottom Washer Nut Cotter	14. 80-3523-000 AN393-7 AN380-2-1	Strut - Jury Connecting Pin - Connecting Jury Cotter
9. AN6-22 AN960-616 AN310-6 AN380-2-2	Bolt - Lift Strut Bottom Washer Nut Cotter	15. AN6-16 AN960-616 AN310-6 AN380-2-2 80-3920	Bolt - Front Strut Top Washer Nut Cotter Seal - Aileron Gap
10. AN5-7 AN960-516 AN310-5 AN380-2-2	Bolt - Lift Struts Connecting Washer Nut Cotter	16. AN5-10 AN960-516 AN310-5 AN380-2-2	Bolt - Rear Strut Top Washer Nut Cotter
		17. #4 x 1/4 A-B	P.K. Screw

Notes :

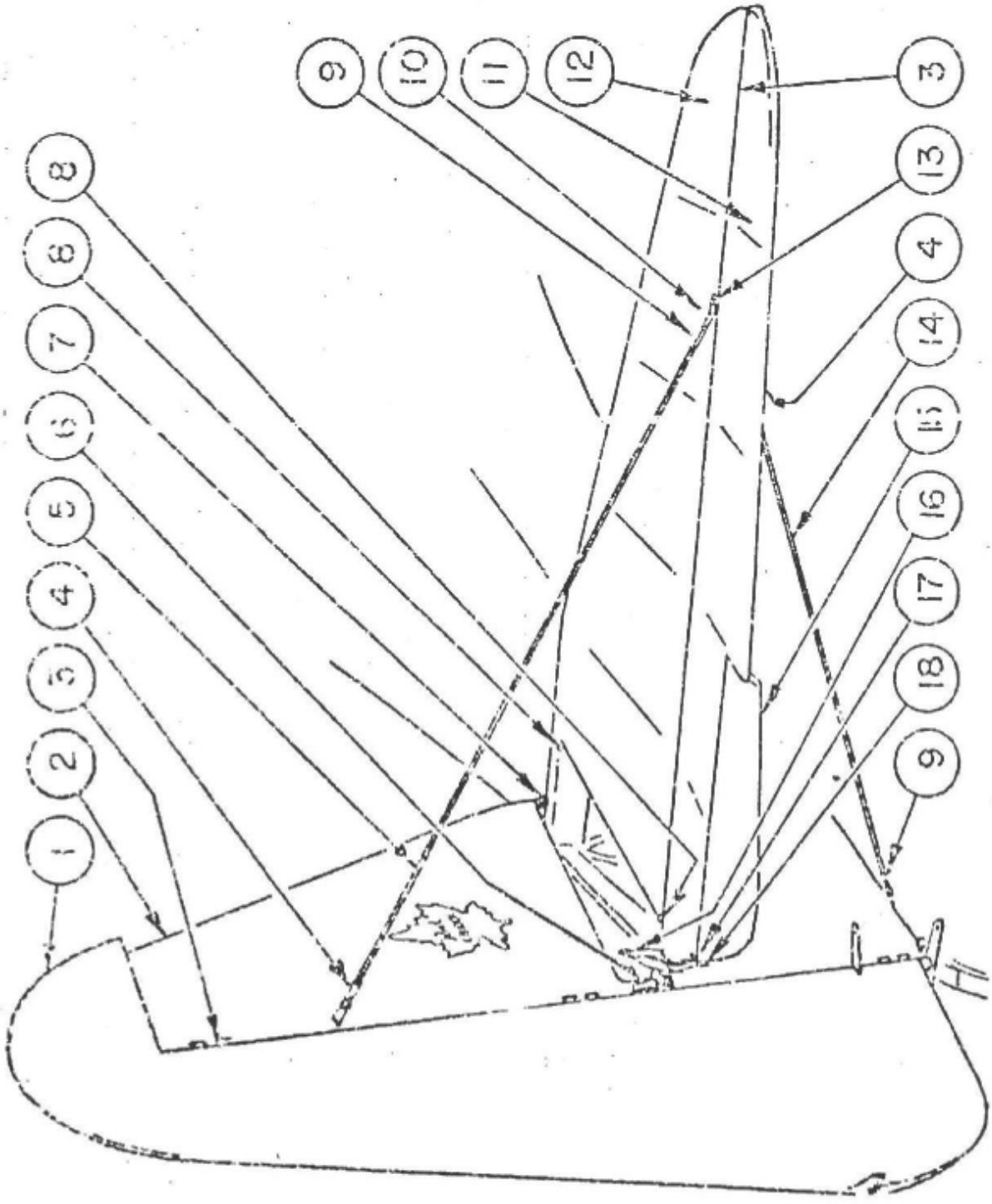
Gap Fairings are supplied undrilled, less rubber channel.

80-3610 Gap Fairing replaces 80-2011-389 Capstrip - Skylight Side.

(Use Same Screw).

Front Jury Strut Clamps cannot be supplied for aircraft 025 to 036. Make from .035 Chrome Moly Steel Sheet (4130) .8 wide.

One piece struts used on 025 to 036 are replaced by the two piece struts listed above.



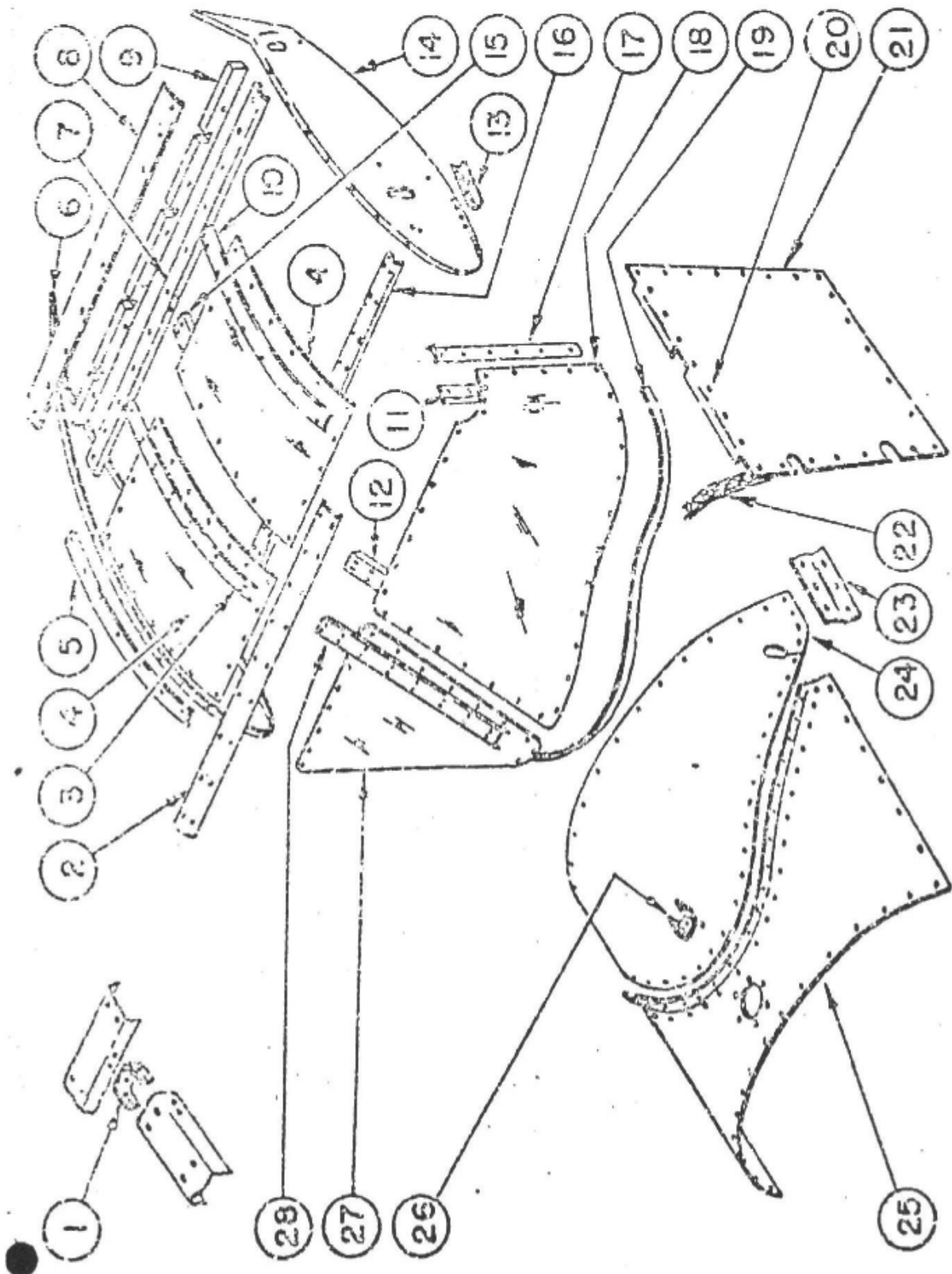
FLEET

## EMPENAGE

1.	80-4400	Rudder (Covered, with Navigation Light Bracket)
2.	80-4201	Fin
3.	AN394-61	Pin
	AN960-416L	Washer
	AN380-2-2	Cotter
4.	AN393-9	Pin
	AN380-2-2	Cotter
	AN665-10L	Terminal
	AN315-640L	Nut
5.	AN671-4500	Tie Wire
6.	AN3-12	Bolt - Fin Rear
7.	AN3-7	Bolt - Fin Front
8.	AN4-13	Bolt - Stabilizer Attachements
9.	AN393-9	Pin
	AN380-2-2	Cotter
	AN315-640R	Nut
	AN665-10R	Terminal
10.	80-4910	Bracket - Top
	80-4920	Bracket - Bottom
11.	80-4310L	Elevator - Left
	80-4310R	Elevator - Right (Less Tab)
12.	80-4100	Stabilizer
13.	AN4-13	Bolt
14.	AN671-4200	Tie Wire
15.	80-4320	Tab
16.	AN3-3	Bolt - Elevators Connecting
17.	80-4330	Bracket - Tab
	AN3-7	Bolt - Tab Bracket
18.	4SP4-B4	Cross Pin - Tab Control
	AN380-2-1	Cotter
	AN960-10L	Washer

Rudder Travel	Left	30deg.	Right	30deg.	+1.5deg. -1.5deg.
Elevator Travel	Up	30deg.	Down	20deg.	+1.5deg. -1.5deg.
Tab Travel	Up	20deg.	Down	20deg.	+5deg. -5deg.

Lock nuts on tie wires must not be tightened over 9 inch pounds, (3 pounds pressure on a 3 inch wrench)  
Wires can be easily strained by overtightening lock nuts.



PLANT

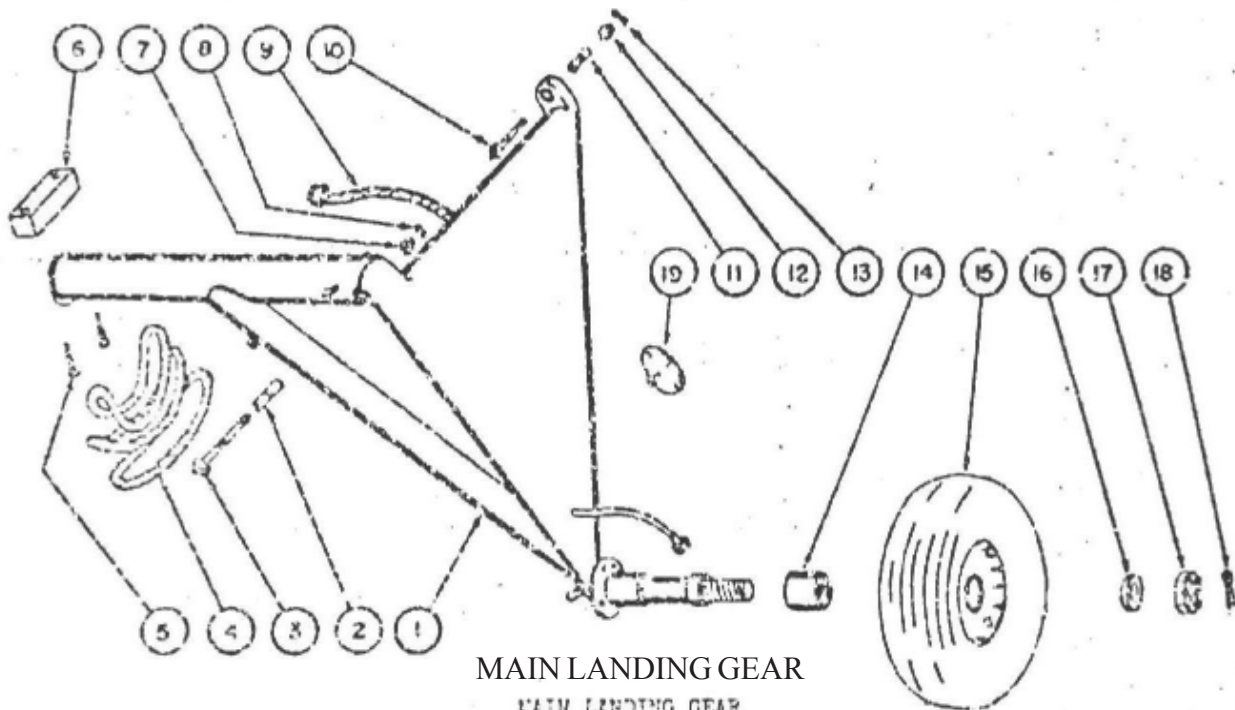
## CABIN STRUCTURE

1.	80-2011-010	Bracket - Beams
2.	80-2011-399	Capstrip - Windshield and Skylight
3.	80-2011-349	Capstrip - Windshield Center
4.	80-2011-318	Skylight
5.	80-2011-389R	Capstrip - Skylight Side Right
6.	80-2011-600R	Rib - Cabin Side Right
7.	80-2011-330	Channel - Skylight Rear
8.	80-2011-379	Capstrip - Skylight Rear
9.	80-2011-800	Tacking Strip
10.	80-2011-389L	Capstrip - Skylight Side Left
11.	80-2011-500L	Angle - Windshield Side Left
	80-2011-500R	Angle - Windshield Side Right
12.	80-2011-129	Channel - Windshield Center
13.	80-2011-900	Bracket - Gap Fairing
14.	80-2011-600L	Rib - Cabin Side Left
15.	80-2011-340	Channel - Skylight Center
16.	80-2011-329	Channel - Skylight and Windshield
17.	80-2011-149L	Capstrip - Windshield Side Left
	80-2011-149R	Capstrip - Windshield Side Right
18.	80-2011-119L	Windshield - Left
19.		1/16 Neoprene Strip
20.	6195-6Z	Plate Nut - Tinnerman
	AN4264D3-4	Rivet
21.	80-2011-700L	Panel - Side Left
	80-2011-700R	Panel - Side Right
22.		1/16 x 5/8 Cotton Webbing
23.	80-2011-150L	Patch - Side Left
	80-2011-150R	Patch - Side Right
24.	80-2011-210	Deck - Rear
25.	80-2011-230	Deck Front
26.	80-2011-160	Bracket
27.	80-2011-119R	Windshield - Right
28.	80-2011-139	Capstrip - Windshield Center
	AN530-6B6	Sheet Metal Screw - Side Panel Top
	AN530-6B10	Sheet Metal Screw - Windshield and Skylight
	AN530-8B6	Sheet Metal Screw - Side Panel
	1181-M1	Speednut - Windshield and Skylight
	1777-M1	Speednut - Windshield Bottom
	1773-M1	Speednut - Side Panel Front
	6052-6I	Speednut - Side Panel Top

For Aircraft Serial Numbers 002 to 161, all cabin parts are undrilled. Plexiglass parts are oversize to allow for trimming on installation.

Flats nuts and rivets are supplied with side panels, item 21.

Item 19, Neoprene strip, is installed all around the windshield and skylight.

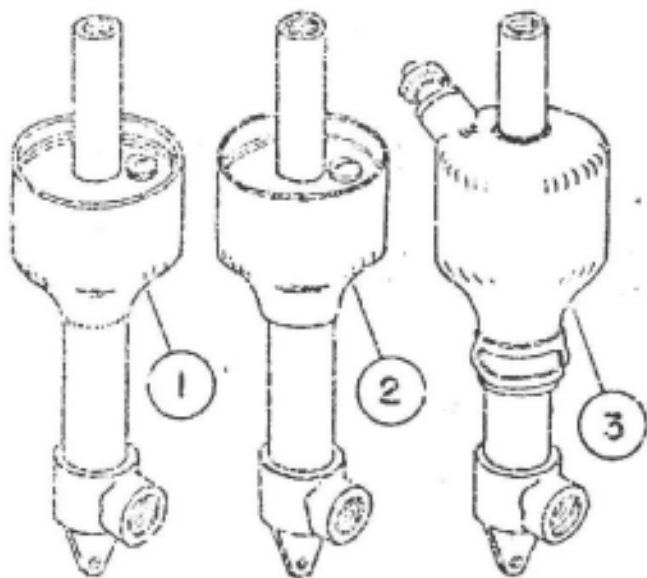


MAIN LANDING GEAR

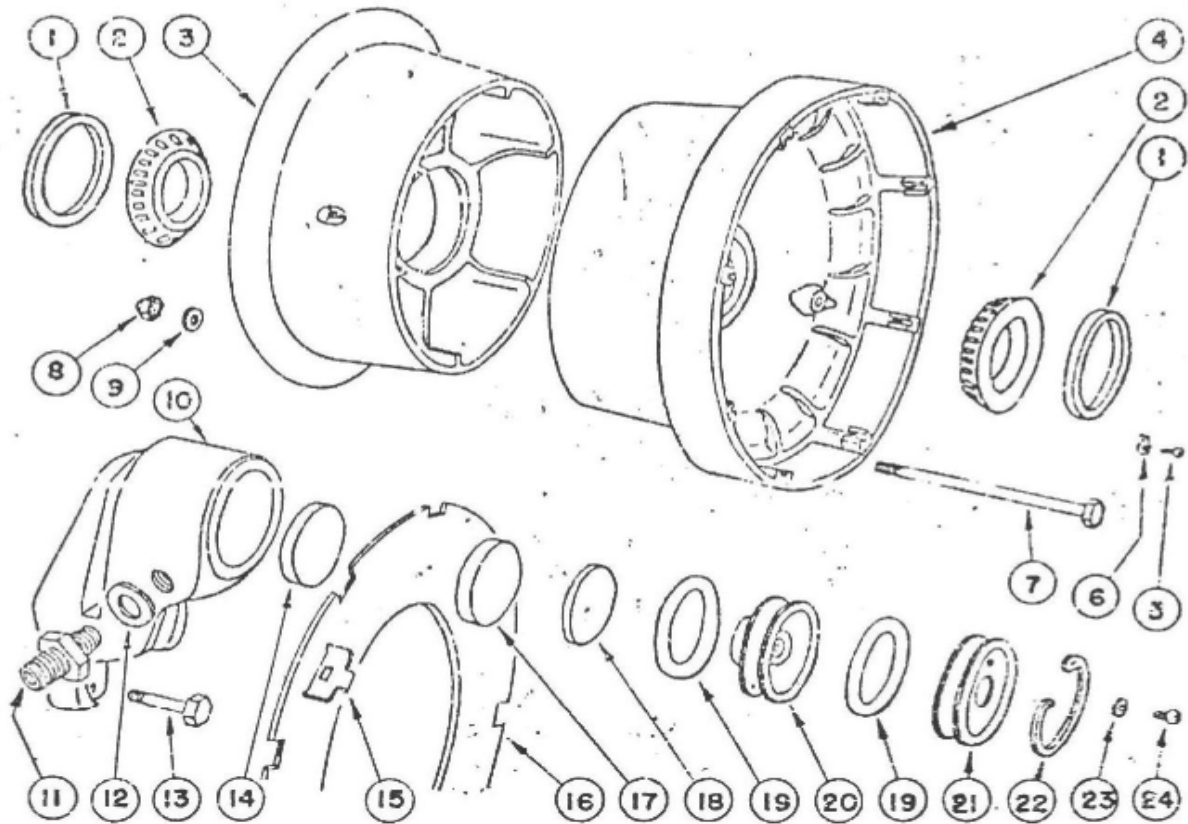
MAIN LANDING GEAR

- |                |                                   |                 |                    |
|----------------|-----------------------------------|-----------------|--------------------|
| 1. 80-6111L    | Strut (With Hydraulic Line) Left  | 10. 80-0580     | Bolt Rear Grease   |
| 80-6111R       | Strut (With Hydraulic Line) Right | 11. 80-0380     | Bushing - Rear     |
| 2. 80-6116-000 | Bushing - Front                   | 12. AN310-4     | Nut                |
| 3. 80-0590     | Bolt - Front Grease               | 13. AN380-2-2   | Cotter             |
| 4. /1255       | Aero Ring                         | 14. 80-6115-000 | Sleeve             |
| 5. /Sx3/8 Z-S  | P.K. Screw                        | 15.             | Wheel, Tire, Tube  |
| 6. 6114-000    | Bumper                            | 16. 80-6113-000 | Washer             |
| 7. AN310-6     | Nut                               | 17. 80-6112-000 | Nut                |
| 8. AN380-3-3   | Cotter                            | 18. AN380-6-12  | Cotter             |
| 9. AN6260-3-14 | Hose                              | 19. D-1000      | Cover - Inspection |
|                |                                   | 80-6110-101/R   | Tube - Brake       |

BRAKE CYLINDERS

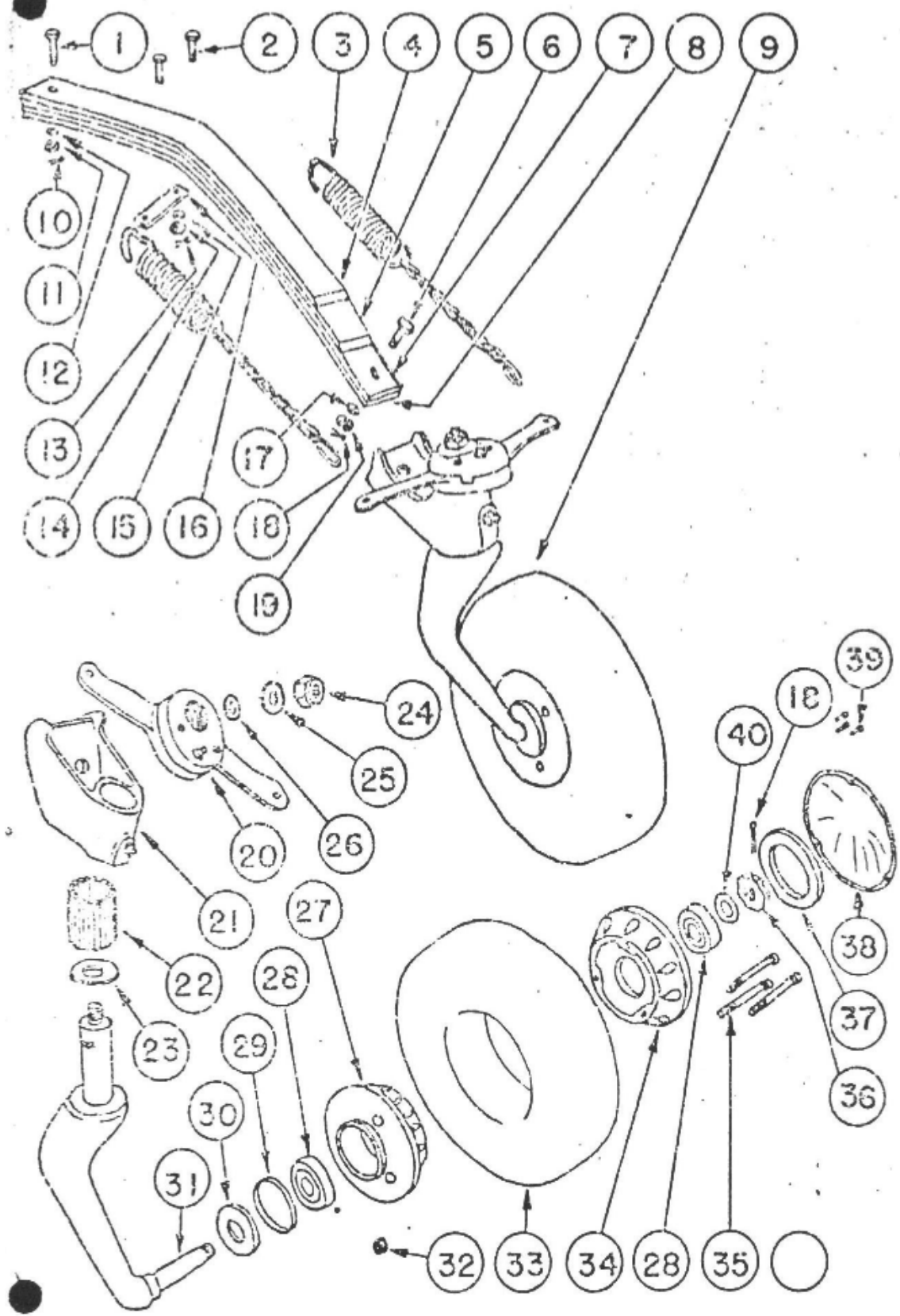


- |             |                             |
|-------------|-----------------------------|
| 1. 4100     | Scott Cylinder              |
| 4014        | Seal - Inner Top            |
| 4013        | Seal - Outer Top            |
| AN6227-9    | Seal - Piston               |
| 2. 4100C    | Scott Cylinder              |
| 4014        | Seal - Inner Top            |
| 4013        | Seal - Outer Top            |
| 1825-3      | Seal - Linear - Cup, Piston |
| 3. 4100D    | Scott Cylinder              |
| 1825-3      | Seal - Linear - Cup, Piston |
| 4130        | Reservoir - Rudder          |
| A3122-14-59 | Clamp - Tinnerman Reservoir |
- Notes : 4100 and 4100C used on Aircraft 002-078, 4100D used on Aircraft 079 on.



- |               |                                  |                |                                          |
|---------------|----------------------------------|----------------|------------------------------------------|
| 1. 510614     | Ring - Bearing Retainer Goodyear | 17. 510717-30  | Brake Lining - Outer Goddyear            |
| 2. 13889      | Cone - Bearing - Timken          | 18. 511565-1   | Pessure Plate - Goodyear                 |
| 3. 511430-N   | Wheel Half - Outboard Goodyear   | 19. AN6227-29  | Seal                                     |
| 4. 511475-M   | Wheel Half - Inboard Goodyear    | 20. 511563-M   | Piston - Goodyear                        |
| 5. 6-32x1/4   | Type 1 Screw - Shakeproof        | 21. 9510253    | Cylinder Head - Goodyear                 |
| 6. 3028-6     | Lock Terminal - Shakeproof       | 22. NAS50-200  | Lock Ring                                |
| 7. AN4-47A    | Bolt - 1/4                       | 23. 511846-4   | Washer - Aluminium Goodyear              |
| 8. AN365-428  | Nut                              | 24. 10-24x5/16 | Screw, Round Head                        |
| 9. AN960-416L | Washer                           |                | NC2                                      |
| 10. 530732-M  | Housing - Brake Goodyear         | 9520297        | Brake Assembly (Less Disc)(Goodyear)     |
| 11. AN920-4D  | Union                            | 511413-M-1     | Wheel Assembly (Less Hub Cap) (Goodyear) |
| 12. AN902-4   | Gasket                           | 510612         | Hub Cap - Goodyear                       |
| 13. AN4-10    | Bolt                             | AN515-6-4      | Screw - Hub Cap                          |
| 14. 510717-31 | Brake Lining - Inner Goodyear    | AN936-A6       | Lockwasher - Hub Cap                     |
| 15. 511918-1  | Clip - Anti Rattle Goodyear      |                |                                          |
| 16. 531058-1  | Disc Goodyear                    |                |                                          |







## TAILWHEEL

1.	AN4-25	Bolt (002-104)
	AN6-24	Bolt (105 on)
2.	AN4-7	Bolt
3.	2151	Spring and Chain
4.	80-6211-100	Spring - Top
5.	80-6211-200	Spring - Second
6.	AN7-12	Bolt
7.	80-6211-300	Spring - Third
8.	80-6211-400	Spring - Bottom
9.	3-24B	Tailwheel Scott
10.	AN380-2-2	Cotter (002-104)
	AN380-3-3	Cotter (105 on)
11.	AN310-4	Nut (002-104)
	AN310-6	Nut (105 on)
12.	AN960-416	Washer (002-104)
	AN960-616	Washer (105 on)
13.	AN380-2-2	Cotter
14.	AN310-4	Nut
15.	AN960-416	Washer
16.	80-6212-000	Clamp
17.	AN960-716	Washer
18.	AN380-3-3	Cotter
19.	AN310-7	Nut
20.	1709	Arm Assembly Scott
21.	2080	Bracket Assembly Scott
22.	2079	Needle B Bearing Scott (27 Req.)
23.	1800	Bushing Scott
24.	AC364-720	Nut
25.	2346	Washer Scott
26.	2085	Shim - Scott
27.	1855	Hub Scott
28.	1883	Timken A4138 & A4050 Bearing
29.	1862	Spacer Scott
30.	1863	Grease Retainer Scott
31.	2078	Fork Scott
32.	AN365-1032	Nut
33.	1879	Tire Scott
34.	1861	Hub Outer Scott
35.	AN501-1032	Screw
36.	AN320-8	Nut
37.	2035	Grease Retainer Scott
38.		Hub Cap
39.	#4 x 3/8	P.K. Screw
40.	AN960-816	Washer

## ENGINE COWLING

Replacing cowling cannot be supplied for aircraft serial number 002 to 029.  
From 030 to 049 Nose Cowls and Side Engine Cowls cannot be supplied. Damaged cowling should be repaired as soon as noticed. The nose cowling is weldable, repairs to the side, bottom and top cowling are made by patching.

80-5308	Engine Cowl Set (Less beams and attachments (010 -029)
80-5311-000	Cowl Engine Nose (050 to 083)
80-5311-001	Cowl Engine Nose (084 On)
80-5311-301	Grill - Nose Cowl Top (to 083)
80-5311-302	Grill - Nose Cowl Top (084 on)
80-5311-401	Grill - Air Inlet
80-5314-000	Cowl - Engine Top (030 on)
80-5315-002	Cowl - Engine Bottom (030 on)
80-5316-000L	Cowl - Assembly Engine Side Left (050 on)
80-5316-000R	Cowl - Assembly Engine Side Right (050 on)
80-5318-400	Bracket - Top Front Engine Cowl
80-5318-500	Washer - Engine Cowl Rubber
80-5319-300L	Beam - Side Engine Cowl Left
80-5319-300R	Beam - Side Engine Cowl Right
80-5319-400L	Beam - Top Engine Cowl Left
80-5319-400R	Beam - Top Engine Cowl Right
AN526-1032R9	Screw - Top Cowl
AN365-1032	Nut - Top Cowl
AN510-10R8	Screw - Flat Head Beams
AN365-1032	Nut
AN960-10	Washer
AN510-416R22	Bolt - Rubber Washer
AN365-428	Nut
AN960-416	Washer

Errata : Correct Cabin Structure parts list Item 3, to read - 3. 80-2011-389 - Capstrip - Skylite Center.  
On same page, bottom, correct 002 to 161 to read 002 - 252.