(4) Trim the airplane and glide at 60 mph true air speed.

(5) The generator control switch should be turned "OFF" as soon as practical in gliding or landing. This applies to LA, L-2A, and L-2M models equipped with the General Armature Model AG-40E generator; or airplanes beginning with serial No. AF 43-199 use the Champion Model W612-6V generator, which has a propeller brake. No special attention is required in approach or landing.

b. LANDING.

(1) Landing is accomplished in the same manner as in any conventional aircraft.

(2) Braking for a short run after landing may be accomplished with safety, if it is within reason and deemed necessary, as these airplanes have very little tendency to nose over on the ground. In making normal "into-the-wind" landings there is little possibility of ground looping if ordinary precautions are taken.

(3) L-2M aircraft are equipped with spoilers on the top surface of both wing panels which are controlled by a lever under the left side of the instrument panel and accessible to the pilot. Opening the spoilers serves to spoil the lift on that portion of the wing, thus steepening the glide path and increasing the rate of sink. Trim the airplane for a normal glide (60 mph) and then apply spoilers as necessary to land the airplane on the preselected "spot." Release or "close" spoilers and break glide in normal manner immediately before touching ground.

WARNING

Spoilers must not be open all the way to the ground as the excessive rate of descent may overstress the airplane upon hard contact with the ground. Experience and the proper manipulation of the spoilers in conjunction with the elevators and throttle will enable the pilot to land the airplane on a much shorter space than would normally be required.

WARNING

During cold weather operations make sure that spoilers and spoiler recesses are free from ice before take-off.

c. CROSS-WIND LANDING.

(1) Since these airplanes are comparatively light in weight and have a low loading, it is well to exercise some extra care in cross-wind landing. Drop the upwind wing sufficiently to overcome the drift effect, stopping the turning tendencies by the use of opposite rudder. This produces the effect of a mild slip.

(2) Straighten out the airplane with the rudder and ailerons just before making contact with the ground. Ground looping is checked by conventional use of the rudder and wheel brakes.

d. TAKE-OFF ON INCOMPLETE LANDINGS.

(1) Since the throttle has been left slightly opened and heat to the carburetor has been applied, the engine will be kept "clear" and ready for instant use should full throttle be needed because of "overshooting" or "undershooting" the field.

(2) Place trim tab in neutral position.

CAUTION

Never open the throttle abruptly. The engine will respond much sooner and more positively if the throttle is moved in a smooth manner.

20. STOPPING OF ENGINE.

The engine shall be stopped as soon as possible after reaching the line or parking area. Allow the engine to idle for a very brief period, turn the ignition switch off, and open the throttle. When stopping the engine in this manner, the danger of after firing on automatic ignition is eliminated. The reason for this method is to cool the spark plugs, valves, and particles of carbon below the point of incandescence. The fuel shut-off valve should be left "ON," unless airplane is to be put in long-term storage.

NOTE

The stopping of the engine is equally as important as the warm-up procedure in starting a cold engine.

21. BEFORE LEAVING THE PILOT'S COMPARTMENT.

a. Ignition switch "OFF."

b. Fuel shut-off valve "ON."

c. Master battery switch "OFF" and set generator brake "ON" (only on airplanes after serial No. AF 43-199).

d. Parking brake "ON."

e. Check Form 1.

f. If windy, secure ailerons to prevent whipping in the wind.

22. TYING DOWN.

(See figure 17.)

a. Use Mooring Kit D-1 as furnished with each airplane. If mooring kit is not available, the airplane may be tied down with manila rope (3/8 inch in diameter, or heavier) anchored in the ground. In emergency, select and notch stakes, and drive into the ground, or tie ropes around large rocks. Trees also may be used to tie to, if available.

b. Place airplane with tail into the wind and elevators depressed.

c. Tie ropes around upper ends of front left and right lift struts and anchor to stakes driven into ground slightly forward of struts and outward from sides of airplane.

d. Pull airplane backward until ropes are taut.

e. Tie rope around lift handle (located on lower longeron near tail) and secure to stake driven into ground directly below lift handle.

CAUTION

Do not moor at wing tips. Handholes at wing tips are for convenience in handling airplanes on ground and are not intended for attachment of tie-down ropes.

f. Set parking brake (chock wheels, if necessary, with any suitable blocks available).

g. Secure ailerons. In emergency fasten the rear control stick in a forward position with the front seat belt.

h. Ignition "OFF."

i. Fuel shut-off valve "ON."

j. Install enclosure cover.

k. Close windows and door.

l. Install engine cover.

m. Install propeller cover.

n. Leave propeller in horizontal position.

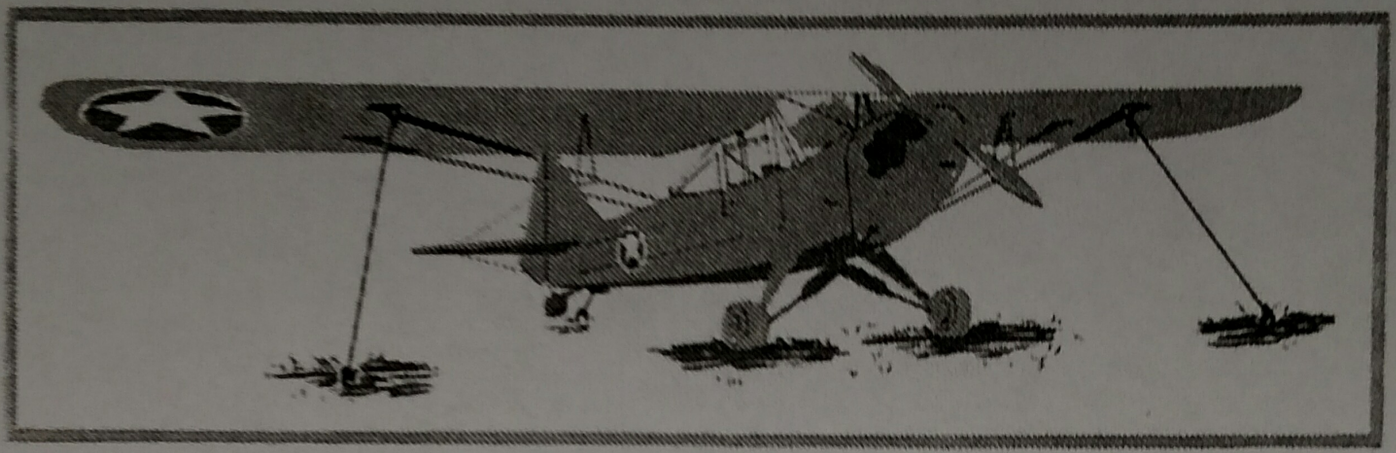

Figure 17—Tie Down Diagram

SECTION III
FLIGHT OPERATING DATA

1. AIR-SPEED LIMITATION.

(Do not exceed 140 mph in a dive.)

2. SPECIFIC ENGINE FLIGHT CHART.

SECTION III
HANDLING AND GENERAL MAINTENANCE INSTRUCTIONS

1. ACCESS AND INSPECTION PROVISIONS.

Access and inspection provisions are illustrated in figure 12, the key to which indicates the purpose for which the various access and inspection provisions are to be used.

2. GROUND HANDLING.

No special equipment is required for the normal handling of these airplanes on the ground. To move on the ground, push or pull on the wing strut at the fuselage or close to the wing attachment fittings. DO NOT PUSH OR PULL ON THE CENTER OF THE STRUTS. Do not move by propeller blades. Push or pull only on the center of the propeller, but only if necessary. This is not recommended. The airplane should not be moved backward without raising the tail. A tail lift is provided on each lower longeron forward of the stabilizer. THE TAIL SHOULD BE RAISED ONLY BY THE LIFT AND NOT BY THE STABILIZER OR TAIL SURFACE TIE RODS.

3. HOISTING PROVISIONS.

The airplane may be hoisted by the wing butt fittings, using a cable sling if the wings are attached. The wing butt fairing bands must first be removed. (*See figure 13.*) If the wings are detached, it is suggested that a flat fitting be bolted to the butt fittings. If the engine and tail surfaces are both removed, the fuselage may be hoisted by the front butt fittings and the tail lifts. Care must be taken, when attaching slings, not to damage the fuel lines or wrap the sling around the aileron control tube. These parts are parallel and close to the front and rear wing butt fittings, respectively.

4. JACKING ARRANGEMENT.

Before any jacking is done, care should be taken to insure that, when the airplane is in a jacked position, it cannot move and slip off the jack. Jacking points are available at the inner ends of the axle for removing main landing wheels. When only one man is available, a jack may be placed under the inner end of the axle to raise a wheel from the ground. When additional personnel is available, blocks can be inserted under either of these jacking points if the airplane is tilted by pushing up on the lift struts, at the point where they join the wing, on the side where the block is to be placed. The tail should be lifted and placed on a horse having a padded surface.

5. LEVELING.

Leveling the airplane laterally may be accomplished by the following procedure: Attach a cord from wing tip to wing tip over the front spar; place a line level on the center of the cord and level the airplane by blocking up the low wheel with a jack or by other means; place a 3/8-inch spacer block on the leading edge of the stabilizer and, using a spirit level, adjust the elevation of the tail until the top of the block is level with the trailing edge of the stabilizer parallel and close to the fuselage. (*See figure 11.*)

6. TIE DOWN.

The airplane should be tied down as follows (*figure 14*):

a. Use the mooring kit (D-1) furnished with each airplane. If mooring kit is not available, a 3/8-inch or heavier rope, anchored in the ground, may be used. (In an emergency, stakes, large rocks, trees, etc. may be used to anchor the rope.)

b. Place the airplane with the tail into the wind and the elevators depressed.

c. Drive two stakes into the ground, one on each side of the airplane, in such a position that they will be slightly forward of and outward from the upper ends of the front lift struts. Secure ropes to the stakes and tie other ends to upper ends of front lift struts.

d. Roll airplane backward to take up slack.

e. Tie rope from tail lift handle to a stake driven into the ground to the rear of the handle.

f. Set parking brake and chock wheels with any suitable blocks available.

g. Secure ailerons. This may be done by fastening the rear control stick in a forward position with the front seat belt.

h. Ignition switch OFF.

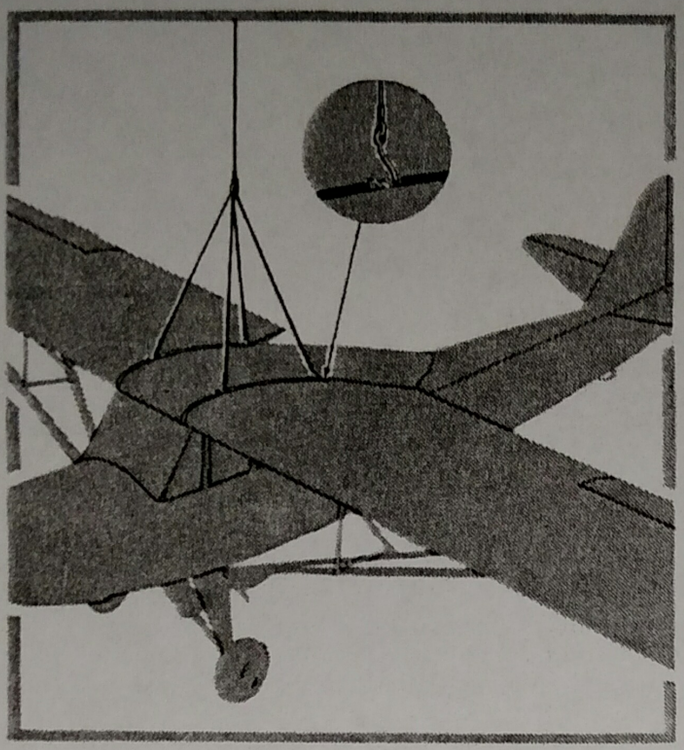

Figure 13 — Hoisting Diagram

i. Fuel shut-off valve OFF (this only when airplane is removed from flight status).

j. Close windows and door.

k. Install enclosure cover.

l. Install engine cover.

m. Install propeller cover, leaving propeller in horizontal position.

7. SERVICE (FUEL, OIL).

a. FUEL.

(1) Fuel system capacity is 14 U.S. gallons (11.67 Imp. gal).

(2) Fuel should be Spec No. AN-F-23, 73 octane or U.S.A. Spec No. 2-103, 80 octane for best engine performance. In an emergency, the next higher octane rating available may be used.

CAUTION

After using 93 or 100 octane fuel, the fuel system must be flushed by running the engine on the ground for a few minutes with 73 or 80 octane. This will assure smoother firing of the lower octane fuel.

(3) Remove fuel filler cap on top surface of either wing (using tank in lower wing if airplane is not level), insert hose, fill tank. Care should be taken, when replacing filler cap, that the open end of the vent is pointing forward.

b. OIL.

(1) Oil reservoir capacity is 1 U.S. gallon (.83 Imp. gal).

(2) For summer operation, use Specification No. AN-VV-O-446 grade 1080 (SAE 40) oil.

(3) For winter operation, use Specification No. AN-VV-O-446 grade 1065 (SAE 30) oil.

(4) Drain and refill oil reservoir every 25 operating hours.

(5) Replenish oil as needed. Normal consump-

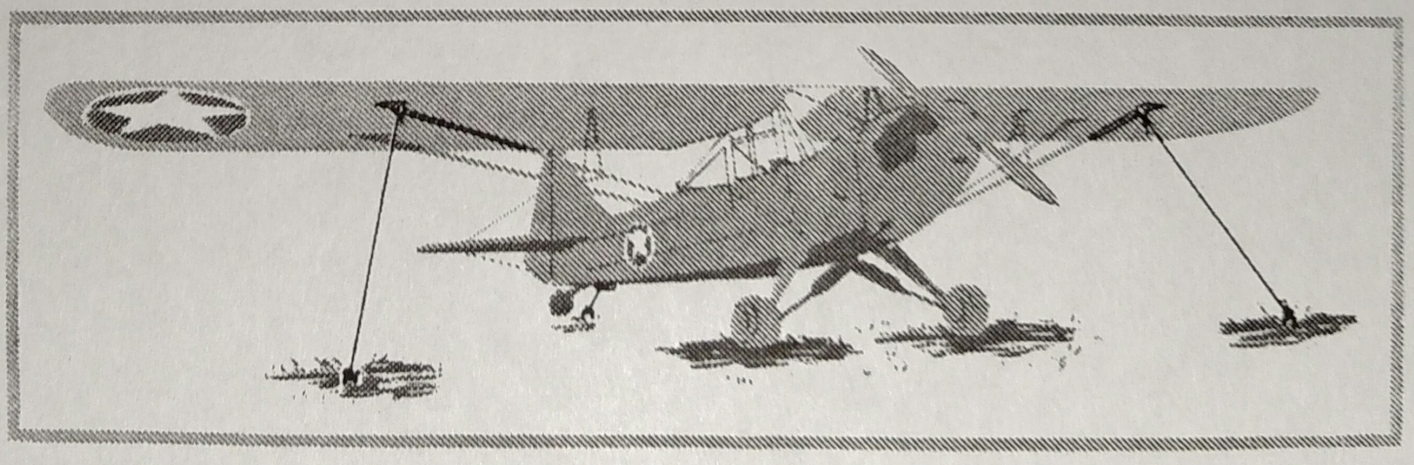

Figure 14 — Tie Down Diagram

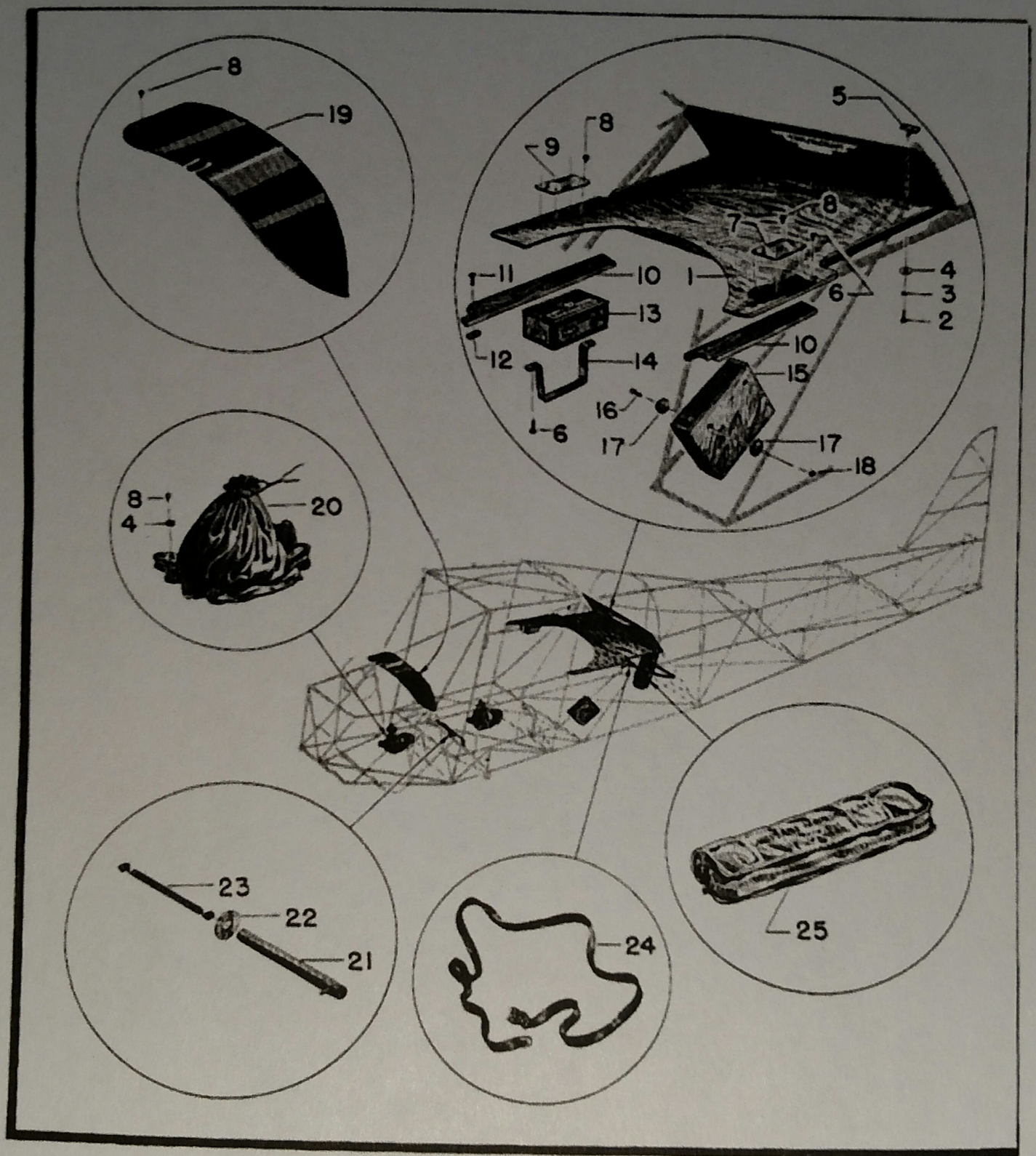

Figure 63 - Miscellaneous Fixed Equipment

FIG. NO.	INDEX NO.	STOCKED	PART NUMBER	1	2	3	4	5	6	NOMENCLATURE	UNITS PER ASSY	PROPERTY CLASSIFICATION U.S. NAVY	U.S. ARMY	BRITISH
GROUP FIXED EQUIPMENT														
MAJOR ASSEMBLY DESK INSTALLATION														
63		6*	DC0-A7052	Desk Installation							1		01-U	
63	1	6*	DC0-A7053		Desk Assy						1		01-U	
63	2	6*	AN515-6-8		Screw - Rd-Hd Machine						3		29	
63	3	6*	AN935-6		Washer - Lock						3		29	
63	4	6*	AN960-6		Washer - Plain						3		04-A	
63	5	6*	58254		Nut - Tee - Type D Oblong - United Carr (B12-920)						3		29	
63	6	6*	AN545-4-3		Screw - Rd-Hd Wood						4		29	
63	7		B-9086		Plate - Taylorcraft Aviation Corporation Name						1		01-U	
63	8		No. 4 x 1/4		Screw - Type A - Stove Hd - P.K.						4		29	
63	9		DC0-1933		Plate - Army Name						1		01-U	
63	8		No. 4 x 1/4		Screw - Type A - Stove Hd - P.K.						4		29	
63	10	6*	DC0-7228		Reinforcement - Desk						2		01-U	
63	11	6*	AN505-6-8		Screw - Flthd Machine (Case Hardened)						2		29	
63	12	6*	410		Nut - Speed - Tinnerman (B12-9114)						2		04-A	
		1*	D-A1117		First Aid Equipment Installation						1		01-U	
		6*	DC0-A1118		First Aid Equipment Installation						1		01-U	
63	13		Emergency		Kit - First Aid - American White Cross Co. (A-909)						1		Med C	
63	14		B12-1071		Clip - First Aid Kit						1		01-U	
63	6	6*	AN545-4-3		Screw - Rd-Hd Wood						2		29	
		1*	S-490 x 9/64		Rivet - Steel - J. L. Thompson (A-936)						2		29	
		1*	AN960-4		Washer - Plain						2		04-A	
63	15	6*	DC0-A7100		Mapholder Assy						1		01-U	
63	16	6*	AN515-6-6		Screw - Rd-Hd Machine						2		29	
63	17	6*	AN970-3		Washer - Flat						4		04-A	
63	18	6*	AC365-632		Nut - Elastic Stop						2		04-A	
63	19	5*) 9*)	D-701	Deck - Woodall							1		01-U	
63	8	9*	No. 4 x 1/4	Screw - Type A - Stove Hd - P.K.							8		29	
63	20		D-A739	Sock Assy - Control Stick							2		01-U	
63	8		No. 4 x 1/4	Screw - Type A - Stove Hd - P.K.							6		29	
63	4		AN960-6	Washer - Plain							6		04-A	
63	21		D-A180	Tube Assy - Rudder Guard Slide							2		01-U	
63	22		AN960-816	Washer - Plain							2		04-A	
63	23		D-1393	Spring - Rudder Guard							2		01-U	
63	24	6*	DC0-1342	Strap - Baggage Hold-Down							1		01-U	
63	25		Type D-1	Case - Airplane Mooring (GFE)							1		19-A	