1. SCOPE

1.1 Purpose.- The purpose of this overhaul specification is to provide instructions for the ground handling, parking and preservation of aircraft.

1.2 Application.- This specification is applicable to all aircraft in the possession of Beech Aircraft Corporation.

1.3 List of Pages and Revisions.- This specification consists of the pages listed below. An asterisk (*) denotes pages revised at the current revision.

Page	Date	Description of Revision	Serial Effectivity
1	5-25-53		
2	5-25-53		
3	5-25-53		
4	5-25-53		
5	5-25-53		
6	5-25-53		
7	5-25-53		
8	5-25-53		
9	5-25-53		

APPROVED:

USAF Quality Control

86

WRITTEN BY	DATE ISSUED 5-25-53	OVERHAUL SPECIFICATION GROUND HANDLING, PARKING AND PRESERVATION OF AIRCRAFT		
PROJECT ENGINEER				
APPROVAL	DATE REVISED	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 7006	PAGE 1
APPROVAL				

E-338A

2. APPLICABLE PUBLICATIONS

2.1 Beech.-

OS 7004	Preservation and Shipping of Engines
OS 7009	Preservation and Shipping of Propellers
OS 7010	Removing Corrosion from Aluminum Parts

2.2 Technical Orders.- Compliance with this specification constitutes compliance with the technical orders listed below.

01-1-7	Storage of Aircraft, dated November 19, 1948
01-1-7C	Supplement, Storage of Aircraft, dated June 10, 1952
01-1-50	Ground Handling of Aircraft, dated June 13, 1952
03-5B-1	Aircraft Storage Batteries, dated August 3, 1951

3. REQUIREMENTS

3.1 Equipment:

3.1.1 Aircraft Awaiting Reconditioning.- All aircraft equipment such as destructors, ordinance gear, cameras, view finders, radar equipment, secret or confidential gear or any other loose or special equipment will be removed and disposed of or reconditioned as directed by the customer.

3.1.2 Aircraft Awaiting Delivery.- Radio, radar, navigation and any electronic equipment will be protected from the elements by wrapping or covering with moisture-resistant barrier or sealing with moisture-resistant tape. When possible, dehydrator agent AN-D-6 will be placed in equipment to reduce the amount of moisture present. Windows, vents, and other openings permitting rain and dust to enter the aircraft will be sealed. Do not seal drain holes on underside of aircraft.

3.2 Ground Handling:-

3.2.1 Towing.- The following instructions and precautions will be followed when towing aircraft.

(a) When towing aircraft, towing bars will always be used. Model 18 aircraft are provided with towing lugs on the inboard side of the main landing gear forks.

(b) Tail wheel or nose wheel must not be in the locked position while the aircraft is being towed.

(c) A qualified man will be in the cockpit when an aircraft is being towed in order to maintain control by use of the brakes.

(d) Towing speeds will be slow, avoiding sudden starts or stops, especially over snow, ice, rough, soggy or muddy terrain. Avoid short radius turns and always keep inside wheel turning during towing operations.

WARNING: The engine or engines of aircraft must not be operating while towing tug or tractor is attached.

3.2.2 Ground Handling Precautions.-

(a) Engines will not be run up with the surface controls in a "LOCKED" position during ground checks, nor will surfaces be locked when taxiing.

(b) Whenever control surfaces are caught by wind or propeller blasts and moved violently against their stops or to the limit of their travel under any condition, a special preflight inspection will be made before the aircraft is flown. In this case, all control surfaces, controlling parts, and mechanisms will be inspected for cracks, or signs of failure, &e, hinges, hinge brackets, control horns, and attachment of surfaces to torque tubes, etc., with particular attention being paid to the possibility that rivets and bolts might have been sheared or become loosened. Necessary corrective action will be taken before the aircraft is flown.

3.3 Parking of Aircraft.- Parking is defined as the placing and securing of aircraft on the ground.

3.3.1 Positioning of Aircraft.-

(a) The aircraft may be moved into the parking position by towing with a tractor, taxiing with the aircraft's power, or moving it by hand. If the aircraft is taxied into position under its own power, the aircraft operator will be qualified for the operation of that type aircraft and engine.

3.3.1 Positioning of Aircraft.- (Continued)

(b) After the aircraft is properly located, place the nose or tail wheel, whichever is applicable, in the "fore-and-aft" position and lock. The direction in which the aircraft is to be parked will be determined by ease of maintenance and servicing or location of tiedown facilities and not by the prevailing wind direction.

(c) Lock control surfaces with internal or external control locks, as applicable. Exception may be made to this requirement for the purpose of performing maintenance and when the aircraft is parked inside a hangar in such a location that it will not be subjected to strong air currents or turbulence through open doors.

(d) Wheel chocks will be placed fore and aft of each main gear wheel only.

NOTE: Do not set parking brakes when aircraft has been moored securely.

3.3.2 Mooring of Aircraft.-

(a) Beech screw type mooring anchors or Air Force-Navy kit No. AN8015-2 will be used for tying down aircraft. The number of screw type anchors or AN kits required per aircraft will be determined by the number of mooring points on aircraft affected. Mooring points, locations, and number are shown in Figure 1. Aircraft parked on hard surfaced areas will utilize as many of the ground mooring points shown in Figure 1 as possible, dependent upon the tie-down rings available.

(b) When AN8015-2 kits or Beech screw type mooring anchors are not available, metal stakes or "dead man" type anchors may be used, providing a pull of 3,000 pounds minimum may be sustained without failure of the anchor.

(c) All mooring ropes will be 3/8-inch Manila or larger and should approximate an angle of 45 degrees to the ground. Sufficient slack should be provided in the ropes between the mooring anchors and the aircraft fittings to prevent them causing undue stress or strain on the aircraft structures, due to tightening of the ropes by moisture absorption or in case of tire or strut deflation on the opposite side. Slip knots will not be used in tying mooring ropes. Anti-slip knots, such as square or bowline will be used. (See Figure 1)

3.3.3 Installation of Spoilers.-

(a) Spoilers will be installed on all aircraft that do not have tricycle landing gear.

(b) If an aircraft has one or more engines removed, spoilers will be installed regardless of type landing gear.

(c) Install a spoiler on each wing at approximately 10 to 15 percent of the average chord aft of and parallel to the leading edge. The spoiler must present at least a 3-1/2 inch vertical surface and must be attached in such a manner as not to be blown off in a high wind. Use Grade A paper or other suitable material to separate the spoiler from the wing.

3.4 Preservation and Storage of Aircraft:

3.4.1 Engines.- Prepare in accordance to OS 7004.

3.4.2 Propellers.-

(a) Propellers removed from aircraft will be treated in accordance with OS 7009.

(b) Propellers remaining on aircraft will be cleaned with a clean cloth saturated with PS 661 solvent to remove oil and dust from propeller blades and hub assembly. Use a dry cloth to remove PS 661.

3.4.3 Aircraft.- Aircraft parked in accordance with Paragraph 3.3 will be prepared for storage according to the following instructions.

(a) Batteries will be removed from aircraft scheduled for reconditioning or extended storage. All batteries will be put in storage or disposed of as directed by the customer. Batteries that have been in service and are not worn out and are scheduled for re-use will be stored in a cool location. These batteries should be given a recharge once each month in temperatures below 80° F, and every two weeks in temperatures above 80° F. Idle batteries tend to discharge themselves and should always be kept in a fully charged condition. This self-discharge occurs much

3.4.3 Aircraft.- (Continued)

more rapidly at high temperatures. The following chart shows the number of days it takes for a fully charged battery to lose half its charge for the temperature shown.

Battery Temperature	Days
60° F	90
80° F	45
100° F	14
120° F	6

(b) The entire fuel system will be drained through the lowest point in the system. It is important that all gasoline be removed from the tanks and system. After a complete removal of gasoline from the system, it will be purged with CO_2 (carbon dioxide) to reduce the fire hazard. Fill the tanks slowly with CO_2 by placing the nozzle near the bottom of the tank. Blank off the drain when CO_2 begins to come out the drain. Allow air to escape out vent and filler openings. Since CO_2 is heavier than air, air will be forced out the top of the tank. Put on filler cap, but do not seal vent opening. Attach an inspection tag No. 764-180045 to the filler cap bearing date of purging and signature of inspector.

(c) Release oxygen from oxygen system by opening emergency supply valves on all demand regulators. After the system is bled, close emergency supply valve and move diluter control levers on all demand regulators to the "OFF or 100 percent Oxygen Position", as the case may be. Apply moisture-resistant tape or install dust plug assemblies in filler valve and all recharger hose assemblies.

WARNING: Be extremely cautious not to contaminate oxygen equipment with foreign matter as even the slightest trace of oil or grease in contact with oxygen under pressure can cause fire or explosion.

(d) Cage automatic pilot control units and all other instruments equipped with a caging device.

(e) Seal all pitot tube openings with moisture-resistant tape.

3.4.3 Aircraft.- (Continued)

(f) Tires will be prepared for storage as follows:

(1) Tires will be protected from dripping oil with tire covers until the oil ceases to drip. Tire covers may then be removed for similar use on other tires. Covers may be made from wood or water-resistant canvas.

(2) Aircraft parked outside which are not blocked up to relieve the weight of the aircraft from the tires, and which are moored on other than solid paved surfaces, will have planks or other material affording solid footing placed under each tire.

(3) Tires on aircraft which are not mounted on blocks will be rotated a sufficient distance to change the supporting point at least once in each 30-day period of storage, except nylon tires which will be similarly rotated to a new supporting position once each week.

(4) When aircraft are installed on blocks, it is permissible to allow tire pressure to fall to 15 pounds psi before restoring to normal operating pressure. On aircraft which are not blocked up tire pressures will be maintained as near as possible at normal operating pressures.

(g) De-icing shoes will be prepared for storage as follows:

(1) De-icing shoes left installed will be washed with a mild soap and water solution. A cloth moistened in naphtha may be used sparingly to remove any remaining greasy dirt. Wipe dry with a clean cloth.

(2) De-icing shoes removed from aircraft will be washed as called out above, thoroughly dried and dusted with soap stone. De-icing shoes will be rolled into a coil, starting with a six-inch roll. Wing de-icing shoes are rolled from the connection end; tail de-icing shoes from the tip end. Wrap in moisture proof barrier and seal with moisture-resistant tape. Store in a dry, dark room with moderate temperature.

(h) Opening in the fuselage, nacelles and wings which admit birds or rodents will be covered or sealed to keep them out. Drain holes will be opened to permit moisture to drain from the aircraft.

3.4.4 Storage Area.- The storage area will be free of inflammable materials and the grass cut to reduce fire hazard.

4. INSPECTION REQUIREMENTS

4.1 Bi-weekly Inspection.-

(a) Every two weeks inspect all installed exterior control locks, interior control locks, chocks, mooring ropes, rods and eyes. When aircraft have been subjected to high velocity winds they will be inspected immediately. Pulled rods will be replaced, deteriorated locks will be replaced, mooring ropes retied and chocks will be repositioned when necessary.

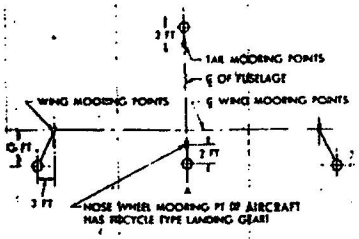
(b) Tire pressures will be tested to prevent the pressure falling below 15 pounds psi on tires that are blocked up and normal operating pressure for tires not blocked up.

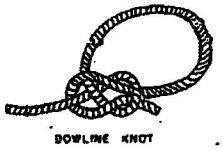
(c) Drainage holes on underside of wing, center section and control surface trailing edges will be kept open.

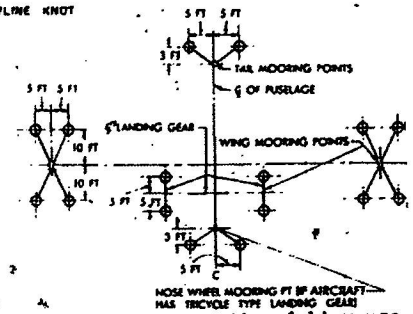
(d) During hot weather, aircraft in storage awaiting delivery will be checked for high interior temperatures. When interior temperatures exceed 160° F, some means of ventilation will be employed to reduce the temperature.

(e) Aircraft in storage awaiting delivery due to shortages, customer pick-up, etc., will be inspected for corrosion. The first appearance of corrosion on unpainted aircraft is in the form of a whitish deposit of spots on the surfaces, especially along seam lap joints and areas where sand or dirt is thrown by the wheels, or in niches and crevices where traces of cleaning compounds may have been allowed to accumulate. In conducting inspections for corrosion, particular attention will be given to the under side of fuselage wings, wing flaps, and aileron actuating mechanisms since moisture deposited in such locations does not evaporate as rapidly as in other locations more exposed to the sun and air. Normally, corrosion will not be as prevalent on painted surfaces as on unpainted surfaces of aircraft; however, under some conditions corrosion may attack the metal through the paint. In such cases, the affected areas will be characterized by blisters or a scaly appearance of the paint. Corrosion will be treated in accordance with OS 7010.

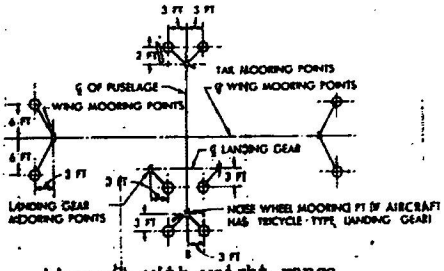
Aircraft with weight range to 5000 lbs gross







Aircraft with weight range over 16000 lbs gross



Aircraft with weight range 5000 lbs to 16000 lbs gross

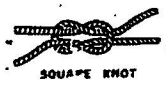


Figure 1 - Methods of Mooring Aircraft

WRITTEN BY Leo B. Holmes	DATE ISSUED 5-25-53	OVERHAUL SPECIFICATION GROUND HANDLING, PARKING AND PRESERVATION OF AIRCRAFT		
PROJECT ENGINEER				
APPROVAL	DATE REVISED	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 706	PAGE 9
APPROVAL				