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WE ASSUME NO RESPONSIBILITY FOR THE CONTENTS.
UNIVAIR AIRCRAFT CORPORATION
FORWARD

This instruction book has been compiled with the view of giving the private owner or operator of Taylorcraft airplanes sufficient knowledge of the construction, operation and care of the airplane so that the service and satisfaction built into it may be obtained.

Carelessness in one form or another is the true source of practically all airplane mishaps. Neglect of, or improper inspection on the ground is the hardest form of carelessness to overcome. While we all condemn reckless flying, improper care on the ground cannot be too strongly pointed out as the most dangerous form of recklessness. Be sure, therefore, when taking delivery of your Taylorcraft airplane that you know how to care for it and if you cannot give it thorough and regular care, put it in the hands of a competent mechanic and give him free use of this Service Manual.

In case of doubt concerning any service or operating problems not covered in this manual, or obtainable through our sales representatives, consult our Service Department which is maintained to assist you in obtaining economical and efficient service from your Taylorcraft.

SERVICE

The Taylorcraft distributors and dealers are rapidly building up their Service Departments. Parts are available and they have efficient licensed mechanics. When in need of service, contact the nearest Taylorcraft representative. The factory maintains a Service Department to assist the representative and you, to obtain the most service from your airplane.

HOW TO ORDER PARTS

When ordering parts, always give the following information to the Taylorcraft representative.

1. The model, Serial No., NC No., and engine Serial No. of your plane. The model and serial number can be found on the metal plate attached to the floor board on the right side of the cabin.
2. The part number and name of the piece wanted, whenever possible. (See Diagram) If you cannot find the part number give as complete a description as possible of the part required and location, stating right or left. A sketch is frequently of assistance in filling orders.
3. Quantity needed. THIS IS IMPORTANT.
4. If representatives do not carry the part needed, state -- to whom the shipment is to be made, address to where parts are to be sent, transportation - Parcel Post, Air Mail, Air Express, Railway Express or Freight.
5. Parts will be shipped C.O.D. unless credit is established or a certified check or money order accompanies the order.
6. Parts ordered to be shipped by Air Express must be accompanied by a money order or a certified check.

NOTE: In order to avoid delays, all communications should be addressed to the attention of the Service Department.
RETURN OF PARTS

Parts returned for replacement, repair, or credit should be accompanied by a letter stating the reason for return with the plane serial number and number of hours the parts have been in service. All possible information that will assist us to determine the cause of the trouble is essential. Transportation must be prepaid.

PRICES

Prices are subject to change without notice.

GENERAL DESCRIPTION

The Taylorcraft. Model B or B12, is a high wing strut braced, two place cabin monoplane and is available as a land plane or seaplane. The Model B or B12 is obtainable with the following 65 horsepower engine installations.

- Lycoming 0-145-B
- Franklin 4AC-176-B2
- Continental A-65-8

SPECIFICATIONS

General (All Models)

<table>
<thead>
<tr>
<th>Part</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>36 ft.</td>
</tr>
<tr>
<td>Height (Tail Down)</td>
<td>78 in.</td>
</tr>
<tr>
<td>Wing Chord</td>
<td>63 in.</td>
</tr>
<tr>
<td>Length Overall</td>
<td>21 ft. 9 in.</td>
</tr>
<tr>
<td>Dihedral</td>
<td>1 degree</td>
</tr>
<tr>
<td>Wheels</td>
<td>Shinn</td>
</tr>
<tr>
<td>Tires</td>
<td>6.00 x 6 2-ply</td>
</tr>
<tr>
<td>Tail Wheel</td>
<td>6 x 200</td>
</tr>
</tbody>
</table>

FUSELAGE

The fuselage is composed entirely of steel tubing welded into a unit structure. All members are of S.A.E. No. 1025 or No. 4130 steel. All members are jig cut and in case of replacement they can be furnished ready for welding into the fuselage.

All fuselage tubes are given a protective coating of primer.

Saltwater seaplane fuselages require extra fittings and special corrosion protection. Fresh water fuselages have no special corrosion protection. Care should be taken to give replacements for seaplanes the same corrosion protection as the original material. All saltwater seaplane fuselage tubes are sandblasted, primed, coated with enamel and oiled on the inside. Information concerning the size and material on any member can be obtained from the Service Department.
WINGS

The wings are a built-up structure having two solid spruce spars braced with steel tubular drag struts and steel tie rods. The ribs are built up of riveted aluminum sections and nailed to the spars. The leading edge is formed of sheet aluminum fastened to the ribs by self-tapping metal screws. The wings are covered with medium airplane fabric which is sewed to the ribs with 6U commercial gray waxed linen, right twist, rib cord, reinforced by means of 3/8” herringbone tape and covered with 1-1/2” pinked edge wing tape. Seven or more coats of high grade airplane nitrate dope provides the cloth with tautness and finish.

AILERONS

The ailerons are also a built-up structure with a spruce spar and with stamped aluminum ribs. Aluminum leading edge is fastened to the ribs by means of self-tapping metal screws and nailed to the spar. They are fabric covered and doped. The ailerons are attached to the wing through steel hinge brackets which are bolted to the rear spar in the wing. The center hinge bracket carries a horn from which a tubular drag link transmits the motion to the ailerons.

TAIL SURFACES

The tail surfaces are built up with steel tubing framework and formed steel ribs. The two stabilizers and the fin are bolted to the fuselage and wire braced. The two elevators are bolted at the horn so that they act as a single unit. The fuselage, fin and stabilizers are equipped with replaceable bronze bushings which should be oiled frequently.

LANDING GEAR

The landing gear is built of tubing forming two separate units and are individually hinged to the fuselage. Each has replaceable bronze bearings, which should be oiled frequently. (See diagram) No part of the landing gear is heat treated. The shock absorbers for each side consist of two 9/16” shock cords. There is a rubber bumper installed on the shock truss in the fuselage which separates the landing gear and the fuselage structure at the point where the shock cord is attached. A stop cable is also provided at this point to prevent the shock cord being stretched beyond its elastic limit. Roller bearings are installed in the wheels. The brakes are cable controlled and of the internal expanding type with the lining on the drums.

Standard planes without brakes are equipped with a spring leaf tail skid. When brakes are installed, a special spring with a full swivel tail wheel is used in place of the spring and skid. A steerable tail wheel is also available.

CONTROLS

The control system has dual wheels attached to an H column to control the elevators and ailerons. The control wheel shafts slide through composition bearings and are connected to the control column by a universal joint. These wheels may be removed by removing the bolt connecting the shaft to the universal joint. Always remove the rear hub of the universal joint when removing duals. The right set of rudder pedals may be removed by removing one bolt from each pedal.

Flexible steel cables are used throughout the control system to transmit motion. All pulleys are mounted on graphite bronze bushings. The trim tab control on the Model B is below the left seat and is to compensate for slight nose or tail heaviness. To correct for nose heaviness, the handle is raised and to correct for tail heaviness, the handle is lowered. The trim tab control on the Model B12 is located on the ceiling, and is turned clockwise to correct for nose heaviness. See diagram for lubrication and adjustment of trim tab.
ENGINE CONTROLS

The engine controls consist of an ignition switch, throttle, a carburetor heater, gas shut-off and primer. There is an altitude adjustment on the Continental carburetor equipped engines, and available on the Lycoming and Franklin at extra cost. Operation instructions for the controls are shown on the instrument panel or control knobs. The throttle is located at the lower center of the instrument panel and is of the push-pull type. The throttle is pushed forward to open.

FUEL SYSTEM

The fuel system on the B12 consists of a twelve gallon terneplate gas tank located in the front of the fuselage and a six gallon tank in the right wing. The valve for the wing tank is located above the corresponding door. The wing tank should be emptied when the main tank is half empty. Fuel is gravity fed to the carburetor. A small copper screen is placed in the outlet of the tank. Flexible hose connections are used between the tank, filtrap and engine. A small copper line is attached to the filtrap inlet to deliver gas through the primer to the cylinders for starting.

The fuel system on the Model B consists of a twelve gallon tank in the front of the fuselage as standard, and a six gallon auxiliary tank can be installed behind the seat as extra equipment.

ENGINES

The engines are wet sump motors, having an oil capacity in their crankcase for one gallon of oil each.

ASSEMBLY OF LANDING VEES

The landing vees are made right and left and the bearings should be oiled or greased just before assembly. With the fuselage supported at the front end, the vees are then put in place and assembled with the bolts provided. Tighten the bolts to a snug fit but not tight enough to resist the motion of the landing gear. Looseness permits excessive wear of the fittings. Install one shock cord, then the safety cable, followed by the second shock cord ring for each vee.

To install wheels, place the tapered roller bearings in their proper positions, install special lock washer and tighten nut sufficient to hold the wheel snugly in place. Be careful not to cause any binding.
ASSEMBLY OF WINGS

The wings are attached to the fuselage through the hinge fittings with the bolts provided. Hold or block the wing in its approximate position while the wing struts are installed with the bolts provided. The proper amount of incidence is built into the fuselage fittings and the dihedral is fixed by the length of the front struts. The rear struts are adjusted at the factory and must be assembled as tagged. After the plane is out in service, it may change balance slightly, by developing wing heaviness. To correct this, remove the bolt at the upper end of the rear wing strut of the opposite of that which is heavy and unscrew the plug 1/2 turn or more until the balance is corrected. After an airplane has received a major overhaul, it may be advisable to check the complete rigging of the airplane. To accomplish this, level the plane laterally by attaching a cord from wing tip to wing tip over the front spar. Place a line level on the center of the string and level the plane by blocking up the low wheel by a jack or other means. Level the plane longitudinally by placing a level on the stabilizer close to and parallel to the fuselage. Use a 30" level to check the incidence at the tip of the wing, (readings to be taken on the first full rib from the tip). By placing the edge of the level at the forward part of the rear spar along the rib mentioned with the level in horizontal position, there will be a gap between the front edge of the level and the wing of 1-5/16". The plug at the top of the rear strut is used for adjustment. The tail surfaces are bolted to the fuselage and rigged level and plumb with the wings with an ordinary level used along the rear tube of the stabilizer and the rear tube of the fin. The wires to be rigged snug but not too taut. A low bass is satisfactory. The control cables are provided with turnbuckles for proper adjustment of the rudder and elevators.

When rigging the ailerons with the wheel centered, adjust the cables through the zipper in the back of the cabin so that the trailing edge of the aileron is in line with the trailing edge of the wing. All cables should be adjusted until they are snug, NOT TIGHT. If the cables are too tight, there will be too much drag in the aileron control.

STARTING

Before the start of any flight, a complete check should be made of the quantity of gasoline and oil contained in the tank or motor. Also, it is recommended that the filter bowl be cleaned frequently because water and dirt will collect there.

When starting, always have a competent person at the controls.

Be sure the gas is turned on and with the switch IN THE OFF POSITION, give the primer one or two shots, then pull the prop through four or five times. Put the switch in the ON position, opening the throttle a little and pull the prop through quickly. If the engine fails to start, repeat the operation. If the engine loads up, put the switch in the OFF position, open the throttle wide and turn the prop backwards a few times to clear the engine. Then start in the conventional manner.

CAUTION: Always block the wheels when starting the engine, unless an experienced person is in the cabin controlling the brakes.
POINTS TO BE LUBRICATED AT EACH PERIODIC INSPECTION

CONTROLS IN FUSELAGE

In the fuselage the main points to be lubricated are in the control system. The shafts of the control wheels slide through Bakelite bearings. A small amount of grease on the shafts will make a smoother working control at this point.

The following points on the Control Column should be oiled frequently:

1. The universal joint at the top of the control column.
2. There is also an oil hole on the top of the control column to lubricate the shaft of the universal joint.
3. The sprocket chain links.
4. The bearings at the bottom of the control column.
5. All pulley bearings and faces of pulleys.

NOTE: There are two pulleys for the aileron cable at the top front of the cabin and two more at the rear of the cabin. The front two can be reached through the zipper openings in the top of the cabin lining and the other two through the zipper opening in the back of the cabin.

On the right side of the floor just in front of the door are three pulleys carrying the elevator cables and one of the rudder cables. There is one pulley on the left side of the floor carrying the other rudder cable. These pulleys should be oiled and checked frequently. There are also cable guides in the rear of the fuselage that may be seen through the rear zipper opening that should be checked every 20 hours for frayed cables. There are also cable guides under the seat which may be inspected by lifting the edge of the seat canvass. Inspection covers at the rear of the fuselage provide access to the elevator control cable ends and these points should be oiled frequently.

CONTROLS IN WINGS

The aileron control horn which is located in the wing at the center aileron hinge bracket may be reached by removing the cover plate on the top of the wing. Oil placed in the hole of the control horn will lubricate the bearing. The ball joints and drag link at this point should be checked for looseness. Looseness due to wear may be removed by tightening the ball stud seat in the end of the drag link. The bronze bearings in the aileron hinge brackets should be oiled frequently. When wear occurs here, new bushings and hinge pins may be installed.
TAIL SURFACES

The hinge joints on all tail surfaces should be oiled frequently. When looseness occurs, new bushings and hinge pins will correct this condition.

LANDING GEAR

The roller bearings in the landing wheels should be lubricated with graphite grease, being careful not to get grease on the brake drum or band. Oil the hinge bearings frequently at the top of the landing gear between the fittings on the fuselage and landing gear. On planes equipped with a swivel type tail wheel, oil the swivel bearing and grease the ball bearings in the hub of the tail wheel.

Note: IT IS IMPORTANT that the bumpers on the fuselage truss under the shock cords be inspected every 20 hours and replaced when needed.

PARACHUTES

Provisions for parachutes have been made. By removing the four bolts (the nuts are riveted in place) on the front edge of the seat and making one-half turn of the leading edge frame and replacing the bolts, the seat is lowered ample to accommodate parachutes.

WINDSHIELD

The windshield may be changed by simply removing the bolts and clamps around its edges and replacing it with a new windshield.

GAS TANK

On rare occasions it may be necessary to remove the gas tank. To accomplish this, remove the control wheels and the front instrument panel which will give access to the tie rods which support the tank. Next remove the caps from the control column bearings and drop the column to the floor. Several engine controls and attachments must also be removed. Remove the forward tie rod nuts next to the firewall and pull the rods. The tank is then free to be removed down and out through the cabin.

ADJUSTMENT OF BRAKE SHOES ON MODEL 6C2HB, 6C4HB AND 6C5HB WHEELS

1. Unhook lock springs from adjustment nuts located outside of brake dust shield.
2. Screw in adjustment nuts until a heavy drag is produced on each shoe. Back out each nut one-half turn.
3. Apply brake firmly, release and check for drag. If still too much drag on either shoe, the corresponding adjustment nut must be backed out one-sixth turn at a time, brakes applied, released and checked for drag until sufficient clearance is obtained.
4. After a satisfactory adjustment is obtained, the lock springs are engaged in the holes in the adjustment nut.
**BRAKE LINING INSTALLATION IN 6C SERIES BRAKE**

Can be installed without any special tools

1. Lightly grind ends of lining until lining is right length for a snug fit in drums.
2. Push lining in drum with gap in lining centered between the rivets which are 1-1/4" between centers. Start by hand, then place a board over lining and tap down until it is flush with edge of drum.
3. Using drum as jig, drill rivet holes through lining, from outside, with an ordinary 9/64" drill.
4. Remove lining from drum with a claw hammer or other flat ended bar, using care to raise it evenly all around the circumference.
5. Countersink lining, with countersink drill, to correct size for rivet head (5/16") to 3/32" depth.
6. Replace lining in drum with holes aligned.
7. Place rivets in drum and rivet by setting head of rivet on end of a 5/16" rod held in a vise and hitting tubular end of rivet with hammer. Care should be taken not to hit the aluminum drum and not to hammer the rivet more than necessary, as there is danger of **distorting the drum with excessive pounding**.

If a special long shank countersink is used, it is not necessary to remove the lining from the drum in order to countersink it.

Note: As brake lining service shops have a standardized set-up for automobile brake work and do not care for special jobs, it is recommended that this work be taken to a small machine shop or garage where there is a drill press or electric drill available.

**ELECTRICAL EQUIPMENT**

All models of Taylorcraft after serial No. 2529 are wired for lights, and on those that are not equipped with navigation lights the wires are strung through the wing and taped to the wing bow at the extreme tip. The wires on the fin are taped to the top edge just ahead of the trailing edge.

The battery is placed on the floor immediately ahead of the seat, slightly to the left of the center of the ship and is grounded to the fuselage framework under the seat. The system is fused in the positive lead where it comes out of the battery box and the fuse should always be replaced by a fuse of the same capacity as the original installation.

If the ship is equipped with a battery, care must be exercised in charging, as small aircraft batteries should not be charged over 2-1/2 amperes in excess of any outside draw such as lights or radio for more than a fifteen minute period.

If the ship is equipped with a generator, charging rate should be held down either by a brake or adjustment, and if the battery is charged outside, charging should never exceed 2-1/2 amperes.

If the charging rate is excessive or if one cell is broken down, the battery will boil, causing acid to leave the battery and perhaps come in contact with parts of the ship which may result in a failure. If the battery is charged out of the airplane, there is not the danger of damage to the airplane, but the battery is likely to be injured if the charging rate is excessive.
As the airplane is built entirely in jigs, it requires no reregging to disassemble and reassemble the wings. There are only two points where any wing adjustment may be made.

The front wing struts being jig built have no adjustment.

To check the rigging of the wings and tail, stretch a cord across the wings at the front spar and level the ship with a line level placed over the center of the cabin. Stretch a second cord across the wings at the rear spar and level with a line level. The rear strut adjustment is used to accomplish this. The bolt at the point of attachment of the wing strut with the wing fitting must first be removed. A long screwdriver may be used to move the adjusting nut as required.

In flight testing, if the airplane flies either wing heavy, the rear strut adjustment may be used to correct this by washing the opposite wing out, or the heavy wing in.

If the airplane flies nose heavy, both wings may be washed in; or if tail heavy, both wings may be washed out for correction.

The tail is rigged level and perpendicular while the ship is level. An ordinary level used along the rear tube of the stabilizer and rear tube of the fin will accomplish this. The wires should be rigged snug but not too taut. A low bass tone is satisfactory.
AIRWORTHINESS MAINTENANCE INSPECTION NOTES

IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN HIS AIRPLANE SO THAT IT IS ALWAYS IN AN AIRWORTHY CONDITION. COMPLIANCE WITH THE NOTES CONTAINED HEREIN IS CONSIDERED NECESSARY FOR PROPER MAINTENANCE.

This paper should be placed in your airplane of the above model with the airworthiness certificate or in the log book. The superseded issue (If any) may then be discarded. (In the case of Air Carriers, the NOTES may be kept at the operator's main base.)

An inspection or revision in accordance with these NOTES must be made at the next periodic inspection and, in the case of the "INSPECTION NOTES", at each subsequent periodic inspection or at the interval stated in the note. "SPECIAL NOTES" need be complied with once only. The aircraft and engine mechanic making the periodic inspection must make an entry in the airplane (or engine) log book attesting to his inspection in compliance with these NOTES. (In the case of Air Carriers, compliance may be noted in the maintenance base records.)

The NOTES listed below are based on service experience and are forwarded in an endeavor to assist in maintaining the airworthiness of your airplane. If you have sold your airplane of the above noted model, please forward this list to the new owner.

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INSPECTION NOTE 1. (August 7, 1940) (Applies only to airplanes equipped with Freedman-Burnham propeller)

INSPECTION REQUIRED EACH 10 HOURS OF OPERATION.

Inspect Freedman-Burnham propeller models P-201-72 and P-201-70 for cracks and loose rivets after each 10 hours of operation in accordance with Airworthiness Maintenance Bulletin No. 31. (Was SPECIAL NOTE 12 of A-1379)

INSPECTION NOTE 2. (September 4, 1941)

Ascertain that the adjusting nut located at the bottom of the glass bowl of the fuel strainer is positively safetied in position and also that the cork gasket between the glass bowl and screen is in serviceable condition. (Was SPECIAL NOTE 22 of A-1379)

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The following NOTES need be complied with once only.

5-23530
SPECIAL NOTE 1. (July 2, 1940; revised December 29, 1941) (Applies to all models listed except BC12-65 and BCS12-65)

On serial Nos. between 1001 and 1970 inclusive, restitch the wing ribs using a 6-U linen rib cord in compliance with Taylorcraft Service Bulletin No. 30. (Was SPECIAL NOTE 14 of A-1379)

SPECIAL NOTE 2. (January 2, 1941) (Applies only to models BC-65 and BCS-65)

Replace coil in aircraft equipped with Bendix-Scintilla SF4L-8, SF4L-9, SF4R-8 or SF4R-9 magnetos in accordance with Airworthiness Maintenance Bulletin No. 33. (Was SPECIAL NOTE 14 of A-1379)

SPECIAL NOTE 3. (February 5, 1941)

Federal SC-1 and SC-2 skis used on aircraft certified as skiplanes must incorporate reinforced channel in accordance with Federal Aircraft Works Service Letter No. 2. Federal Aircraft will supply material and instructions upon request. (Was SPECIAL NOTE 15 of A-1379)

SPECIAL NOTE 4. (February 5, 1941) (Applies to all models except BC12-65 and BCS12-65)

Inspect weld attaching central column universal to aileron control sprocket shaft. If weld is cracked, rework or replace with a new factory part. (Was SPECIAL NOTE 16 of A-1379)

SPECIAL NOTE 5. (February 5, 1941) (Applies to all models listed except BC12-65 and BCS12-65)

Inspect fuselage members adjacent to aluminum door jamb (or cover) for wear produced by vibratory action of jamb on structure. Trim jamb to provide a minimum of 1/16 clearance at all points. Weld patch plates to fuselage members if wear appears excessive. (Was SPECIAL NOTE 17 of A-1379)

SPECIAL NOTE 6. (February 5, 1941) (Applies to all models listed except BC12-65 and BCS12-65)

Make an entry in the log book outlining the extent of the changes made to insure proper engine idling operation in compliance with Airworthiness Maintenance Bulletin No. 41. (Was SPECIAL NOTE 18 of A-1379)

SPECIAL NOTE 7. (July 11, 1941)

Install the stainless steel oil filler cap spring (Continental Part No. 22060) for the following engines in accordance with Continental Service Bulletin No. 40-3:

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Engine Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-50 Series</td>
<td>Up to No. 1332 (Inclusive)</td>
</tr>
<tr>
<td>A-65 Series</td>
<td>Up to No. 4304 (Inclusive)</td>
</tr>
</tbody>
</table>

And all fuel injection models.

(Was SPECIAL NOTE 19 of A-1379)
SPECIAL NOTE 8. (October 1, 1941)
Ascertain that the complete engine model designation is shown on the name plate (i.e., A-65-8) in accordance with Continental Service Bulletin No. 41-12, as the series designation was omitted on some of the following engines:

A-50 Up to Serial No. 139819, incl.
A-65 Up to Serial No. 1089618, incl.

(Was SPECIAL NOTE 23 of A-1379)

/s/ A. A. Vollnecke
Chief, Aircraft Engineering Division

KS:MRH

5-23530
TRANSMITTED

TAYLORCRAFT AVIATION CORPORATION
ALLIANCE, OHIO

Subject: INSPECTION OF CONTROL CABLE PULLEYS, TAYLORCRAFT MODELS A AND B.

Reason for Change: To assure airworthiness of the subject airplanes.

Airplanes Affected: All those airplanes of the Model A and B Series which still incorporate control pulleys made of micarta, easily recognized by their black color and glossy finish.

Accomplishment: Inspection to be made and any change required by "Description of Change" below to be accomplished by the owner.

Description of Change: As a precautionary measure, the manufacturer requests that at the next periodic inspection on all Model A and Model B aircraft, it be determined whether any of the pulleys over which flight control cables pass, are made of micarta. These pulleys can easily be distinguished by their glossy black color as compared with the usual brown color for similar pulleys in later models. Record of the inspection made in accordance with this bulletin, and the results, thereof, should be recorded in the Aircraft Log Book.

If there is no black pulley in the system, this should be noted in the Aircraft Log Book, and no further action need be taken to comply with this bulletin.

If black pulleys appear in the system, their position should be noted in the Aircraft Log Book, and on this and subsequent periodic inspection they should be carefully inspected to determine that they are sound and free from splits or cracks particularly in the groove through which the cable runs. If such cracks appear, the pulleys should be replaced immediately. The groove radius should
also be checked. This radius should be 5/64". A convenient method of checking would be to determine that the shank of a 5/32" drill will bottom in the groove. If the groove is undersize, the pulley should be replaced. Record of such replacements should be made in the Aircraft Log Book.

### Parts Required

**Per Airplane:**

Parts required to comply with this bulletin can be determined only after inspection of the aircraft. Any replacement pulley which may be required can be obtained from the manufacturer at cost plus postage upon notification of its diameter and position in the airplane, the ship serial no., date of manufacture, and NC numbers.

### Special Tools:

None.

### Attention:

If you have sold your airplane, please forward this bulletin to the new owner.

Harold White  
Service Manager
Surface of stabilizers are parallel to thrust line

Plane to be in level position

Left & Right wing are rigged in this manner

Thrust Line

30° Level

First Full Rib from tip - about 26" from tip
AILERON LUBRICATION CHART

GRAPHITE OIL HOLE ON TOP OF CONTROL HORSE

REAR SPAR

OIL

A-8036 BUSHING
TOP FUSELAGE ASSEMBLY B-A14

SIDE STATION NUMBERS ARE FOR REFERENCE

BOTTOM - TOP VIEW