
Servicing

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Serviceing Record

	DATE	QTY	DATE	QTY
Engine Oil	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Hydraulic Fluid	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Tires	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Servicing Record (continued)

	DATE	QTY	DATE	QTY
Brake Fluid	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Oxygen	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
Other	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

The following procedures are for reference purposes only. Always refer to the Aircraft Flight Manual, Aircraft Maintenance Manual, and Engine Maintenance Manual for current procedures, precautions, and approved servicing materials.

Pilot Authorized Preventive Maintenance (FAR Part 43)

Many items on the King Air 350 can be routinely serviced by pilots who do not possess a mechanic's certificate. Pilots should consult FAR Part 43, Appendix A, paragraph (c) for a list of items that can be performed by anyone possessing at least a private pilot's license.

Maintenance record entries should include:

- a description of the work performed.
- the date of completion.
- the name of the person performing the work.
- the signature, certificate number, and kind of certificate of the person performing the work.

The log entry should be signed only if the work has been performed satisfactorily. The log entry signature constitutes an approval for return to service only for the work performed.

Parking

The parking brake may be set by pulling outward the parking brake control, located on the extreme left side, below the pilot's subpanel, and depressing the toe portion of the pilot's rudder pedals. The parking control closes dual valves in the brake lines that trap the hydraulic pressure applied to the brakes and prevents pressure loss through the master cylinders. To release the parking brake, depress the pilot's brake pedals to equalize the pressure on both sides of the parking brake valves and push the parking brake control fully in.

NOTE: Avoid setting the parking brake when the brakes are hot from severe usage, or when moisture conditions and freezing temperatures could form ice locks.

NOTE: The parking brake should be left off and wheel chocks installed while the airplane is unattended. Changes in ambient temperature can cause the brakes to release or to exert excessive pressures.

Tie-Down

Three mooring eyes are provided: one underneath each wing, and one in the ventral fin. To moor the airplane, chock the wheels fore and aft, install the control locks, and tie the airplane down at all three points. If extreme weather is anticipated, it is advisable to nose the airplane into the wind before tying it down. Install engine inlet and exhaust covers, propeller tie-down boots (one blade down), and pitot mast covers when mooring the airplane.

WARNING: Unrestrained propellers are apt to windmill. Prolonged windmilling at zero oil pressures can result in bearing damage. Windmilling propellers are a SAFETY HAZARD.

Prolonged Out-Of-Service Care

Refer to the Aircraft Maintenance Manual (AMM).

Engine Care In Salty Environments

When the airplane is operated in a salty atmosphere (such as near the sea) or off airstrips treated with salt:

1. Wash engine exterior as soon as possible with clean water.
2. Start engine and run at idle for a minimum of 10 minutes to remove moisture and salt residue.
3. Spray rust preventive material on fuel control assembly, controls linkage assembly, and any exposed metal parts.
4. Inspect the entire gearcase for corrosion and spray with rust preventive material at one-week intervals. Pay particular attention to the areas around studs and inserts.

External Power

The airplane is equipped with an external power receptacle, located just outboard of the right engine in the lower side of the wing center section. The receptacle will accept a standard AN-type plug. A yellow EXT PWR caution light on the caution/advisory annunciator panel will flash when the external power plug is engaged. A flashing light denotes low voltage. The EXT PWR annunciator will be illuminated continuously when the external power voltage is high enough to prevent battery discharge. The airplane electrical system is automatically protected from reverse polarity (i.e., positive ground) and overvoltage.

External power can be used to operate all the airplane electrical equipment (this includes avionics checkouts) during ground operations without the engines running, and it can be used to start the engines. The external power circuit is capable of accepting 400 amperes continuously, and it can withstand current surges which may occur during engine starting. Refer to the AMM for ground checkout information.

CAUTION: The output setting must not exceed 1,000A on external power sources with a higher current-carrying capability. Any current in excess of 1,000A may overtorque the starter-generator driveshaft or produce heat sufficient to shorten starter-generator life.

CAUTION: The battery may be damaged if exposed to voltages higher than 32V for extended periods of time.

CAUTION: Never connect an external power source to the airplane unless a battery indicating a charge of at least 20 volts is in the airplane. If the battery voltage is less than 20 volts, the battery must be recharged, or replaced with a battery indicating at least 20 volts, before connecting external power.

NOTE: When an external power source is used, ascertain that it is capable of generating a minimum of 1,000 amps momentarily and 300 amps continuously. The battery should be ON to absorb transients present in some external power units.

NOTE: On airplanes prior to FL-215 and FM-10, if the battery is partially discharged, the BATTERY CHARGE annunciator will illuminate approximately 6 seconds after the external power is on the line. If the annunciator does not extinguish within 5 minutes, refer to Battery Charge Rate in AFM Section IIIA, ABNORMAL PROCEDURES.

Battery

NiCad

Airplanes Prior To FL-215 and FM-10:

Servicing the 24-volt, 20-cell, air-cooled, nickel-cadmium battery is normally limited to checking the electrolyte level, cleaning the battery box and associated components, and equalizing the cells. For detailed servicing of the battery, refer to the AMM.

Lead Acid

Airplanes FL-215 and After; FM-10 and After; FN-2 and After:

Servicing the 24-volt, sealed, lead-acid battery is limited to recharging an inadvertently discharged battery and scheduled capacity checks. For detailed servicing of the battery, refer to the AMM.

Hydraulic System Servicing

The hydraulic system reservoir and accumulator are located in the left center section. The accumulator pressure should be maintained at 800 ±50 psi. Refer to the AMM for detailed procedures.

The reservoir cap incorporates a dipstick marked in degrees Fahrenheit; the fluid level should be at its corresponding temperature. For additional information, refer to the AMM.

Landing Gear and Brakes

Hydraulic System Power Pack

Open the access door on the top of the left wing center section. Slowly bleed any residual air pressure from the fill reservoir by pausing a moment after unlocking the cap.

Add MIL-H-5606 hydraulic fluid to the reservoir until level with the mark indicated on the dipstick.

Install the dipstick.

Close the access door on the top of the left wing center section.

Tires

The airplane is equipped with dual tires on the main gear and a single tire on the nose gear. Each main gear is equipped with 19 x 6.75-8, 10-ply-rated tubeless tires, and a 22 x 6.75-10, 8-ply-rated tire is installed on the nose gear.

Inflate the main-wheel tires to between 80 and 87 psi unloaded and 88 and 92 psi loaded. The nose wheel tire should be inflated to between 55 and 60 psi.

Refer to the AMM for more detailed inspection and repair procedures.

NOTE: While Beech Aircraft Corporation cannot recommend the use of recapped tires, tires retreaded by an FAA-approved repair station with a specialized service-limited rating for TSO-C62c may be used.

Shock Struts

Serviceing the shock struts is normally part of each 50-hour routine inspection procedure. If it becomes necessary to service the shock struts due to the leakage of either the hydraulic oil or the air, refer to the AMM for the procedure.

Brake System

Brake servicing is limited to maintaining adequate fluid in the reservoir. A dipstick is provided as part of the reservoir lid to measure the fluid level. When the fluid is low, add sufficient quantity of approved hydraulic fluid to raise the level to the full mark on the dipstick.

Brake assemblies are equipped with automatic adjusters to assure a positive clearance between disc and lining when the brakes are not applied.

Each wheel cylinder (except those airplanes equipped with optional brake deice) is provided with a means of conveniently checking brake wear. For more detail on servicing of the wheels and brakes, and airplanes equipped with brake deice, refer to the AMM.

Shimmy Damper Servicing

Shimmy damper servicing consist of checking and replenishing the fluid. For more detail on the servicing of the shimmy damper, refer to the AMM.

Optional Windshield Washer System

The washer fluid reservoir is located just aft of the copilot's chair. The reservoir is placarded to show a capacity of 1 gallon and should be filled no more than two inches from the top. Washer fluid should be mixed according to the formula shown on the reservoir (60% Ethylene Glycol, 39% Water and 1% Liquid Detergent). A removable filler cap is located on top of the unit.

Oil System Servicing

The oil tank is provided with an oil filler neck and quantity dipstick cap marked in U.S. quarts and indicates the last five quarts required to bring the system up to full. Access to the dipstick cap is gained through an access door on the aft engine cowl. Service the oil system with oil as specified in Consumable Materials. Do not mix different oil brands together. Total oil tank capacity is 11 U. S. quarts (10.4 liters). When a dry engine is first serviced, it will require approximately 5 quarts (4.7 liters) in addition to tank capacity to fill the lines and cooler, giving a total system capacity of 16 U.S. quarts or 4 U.S. gallons (15.1 liters). The engine will trap approximately 1.5 quarts (1.4 liters), which cannot be drained.

NOTE: The dipstick indicates one quart below full when the oil level is normal. Overfilling may cause a discharge of oil through the breather until a satisfactory level is reached.

For further information regarding servicing of the oil system, refer to the Servicing Schedule in this section and the AMM.

Fuel System Servicing

Approved Fuels

Commercial JET A, A-1, B

Emergency Fuels 80 RED; 91/96, 100LL BLUE;
100 GREEN; 115/145 PURPLE

In some countries, 100LL blue is designated 100L and colored green.

Military JP-4, -5, -8

Emergency Fuels 80/87 RED; 100/130 GREEN;
115/145 PURPLE

NOTE: Limitations on the use of aviation gasoline are:

1. Operation is limited to 150 hours between engine overhauls.
2. Both standby fuel pumps must be capable of operation.
3. Crossfeed capability is required for flight above 20,000 feet pressure altitude (FL200).

Fuel Biocide Additive

Fuel Biocide-fungicide "BIOBOR JF" in concentrations of 135 parts-per-million (ppm) or 270 ppm may be used in the fuel. BIOBOR JF may be used as the only fuel additive, or it may be used with the anti-icing additive conforming to MIL-I-27686 specification. Used together, the additives have no detrimental effect on the fuel system components.

Refer to **Table 6-A**, the B300/B300C Maintenance Manual and the latest revision of Pratt and Whitney Canada Engine Service Bulletin No. 13044 for concentrations to use and for procedures, recommendations, and limitations pertaining to the use of biocidal/fungicidal additives in turbine fuels.

Turbine Fuel		Biobor JF @ 270 ppm			Biobor JF @ 135 ppm		
lb	gal	lb	gal	fl oz	lb	gal	fl oz
670	100	0.18	0.02	2.63	0.09	0.01	1.32
1,340	200	0.36	0.04	5.26	0.18	0.02	2.63
2,010	300	0.54	0.06	7.89	0.27	0.03	3.95
2,680	400	0.72	0.08	10.53	0.36	0.04	5.26
3,350	500	0.90	0.10	13.16	0.45	0.05	6.58
6,700	1,000	1.18	0.21	26.46	0.90	0.10	13.16
13,400	2,000	3.62	0.41	52.92	1.81	0.21	26.46
16,750	2,500	4.52	0.52	66.08	2.26	0.26	33.04
33,500	5,000	9.01	1.03	132.16	4.52	0.52	66.08
67,000	10,000	18.09	2.07	264.47	9.05	1.03	132.31

Table 6-A; Biobor JF Blending Ratios

Refueling

WARNING: Switch fueling is the practice of mixing fuels with a flashpoint of less than 100°F (38°C) with fuels having a flashpoint of more than 100°F or vice versa. Mixing kerosene base JP-5, JET A or JET A1 fuels with wide-cut distillants, JP-4 AND JET B is considered switch fueling. Switch fueling changes the fuel/air mixture flammability characteristics. When switch fueling must be accomplished, fueling rates must be reduced to half of the normal rates.

CAUTION: To prevent damage to the filler neck, do not let fueling nozzle rest against side of filler. To prevent damage to the fuel tank bladder, do not insert fueling nozzle more than three inches.

Statically ground the airplane to the servicing unit and to the ramp.

Service the main tanks first; main filler caps are located in the outboard fuel cell on the leading edge of each wing near the wing tip.

Service the auxiliary tanks second through the auxiliary filler caps located on top of the wing center section inboard of each nacelle.

Allow a three hour settling period if possible.

Drain a small amount of fuel from each drain point.

NOTE: Clean any spilled fuel/additive off tires to prevent tire deterioration.

Fuel System Defueling

Defuel the airplane with the aid of a fuel truck as follows.

1. Remove fuel filler caps.
2. Connect a static ground cable from the airplane to a ground stake.
3. Connect a static ground cable from the defueling vehicle to a ground stake.
4. Connect a static ground cable from the defueling truck to the airplane.
5. Remove the cover on the bottom of the nacelle to gain access to the adapter plug.
6. Attach the hose from the defueling truck to the AN832-12 union.
7. Remove the plug from the defueling adapter, located aft of the standby boost pump, and screw the AN832-12 union into the adapter. This will allow fuel to flow from the airplane to the defueling vehicle. Attach the clamp to the hose to prevent fuel leakage around the hose-union-adapter connection. Start the defueling pump.
8. When defueling is completed, shut off the defueling pump. Disconnect the hose and the AN832-12 union from the defueling adapter.
9. Install the adapter plug.
10. Disconnect the AN832-12 union from the hose.
11. Disconnect the static ground cable from the defueling vehicle to the airplane.
12. Disconnect the static ground cable from the defueling vehicle to the ground stake.
13. Disconnect the static ground cable from the airplane to the ground stake.
14. Install the fuel filler caps on the airplane.

Instrument Vacuum Air

Vacuum for the flight instruments is obtained by operating an ejector with bleed air from the engines. During operation, the ejector draws air in through the instrument filter and the gyros. A vacuum-relief regulator valve regulates instrument pressure.

The instrument filter, located at the top of the avionics compartment, is of prime importance and should be checked every 150 hours and replaced every 600 hours, or more often if conditions warrant (smoky, dusty conditions).

The vacuum-relief regulator valve, located on the forward pressure bulkhead in the bottom of the avionics compartment, is protected by a foam sponge type filter, which should be cleaned in solvent every 150 hours. If vacuum pressure rises above a normal reading, clean the filter and recheck vacuum pressure before attempting to adjust the valve.

Cabin Air Replacement

A flexible, fiberglass-type air filter covers the coils of the forward air conditioner evaporator. When an aft evaporator is installed, another flexible filter is used at the aft evaporator coils. A foam-rubber type recirculated-air filter is also installed over the return-air valve, at floor level forward of the copilot's rudder pedals. All these filters should be inspected each 150 hours of operation, and replaced whenever dirty. Refer to the AMM for procedures regarding filter replacement.

Filling the Oxygen System

Fill the oxygen system slowly by adjusting the recharging rate with the pressure-regulating valve on the servicing cart, because the oxygen, under high pressure, will cause excessive heating of the filler valve. Fill the cylinder (50-, 77- or 115-cubic foot (1416, 2181, or 3257 liters)) to a pressure of 1800 \pm 50 psi at a temperature of 21°C. This pressure may be increased an additional 3.5 psi for each degree of increase in temperature; similarly, for each degree of drop in temperature, reduce the pressure for the cylinder by 3.5 psi. The oxygen system, after filling, will need to cool and stabilize for a short period before an accurate reading on the gage can be obtained. When the system is properly charged, disconnect the filler hose from the filler valve and replace the protective cap on the filler valve.

Ground Deicing and Anti-Icing

Deicing is the removal of ice, frost, and snow from the airplane's exterior after they have formed. Anti-icing is a means of keeping the surface clear of subsequent accumulations of ice, snow and frost.

Snow and ice on an airplane will seriously affect its performance. Even formation of a smooth covering of ice on the wing will change the contour of the wing, producing an increase in drag and a reduction in effective lift coefficient. Frost or frozen snow may present an even greater hazard since the surface texture is rough and will seriously disrupt the smooth flow of air across the wing.

Snow Removal

The best way to remove snow is to brush it off with a squeegee, soft brush, or mop. Exercise care so as not to damage any components that may be attached to the outside of the airplane, such as antennae, vents, stall warning devices, etc. Remove loose snow from the airplane before heating the airplane interior; otherwise, at low temperatures, the snow may

melt and refreeze to build up a considerable depth of ice. Never attempt to chip or break frozen snow from the airplane. If the airplane has been hangared and snow is falling, coat the airplane surfaces with an anti-icing solution; snow falling on the warm surface will have a tendency to melt, then refreeze.

After snow has been removed from the airplane, inspect the airplane for evidence of residual snow, particularly in the area of control surface gaps and in the hinge areas. Carefully inspect the static ports for evidence of obstruction. Check the exterior of the airplane for damage to external components that may have occurred during the snow removal operations.

Control surfaces should be moved to ascertain that they have full and free movement. The landing gear mechanism, doors, wheel wells, uplocks and microswitches should be checked for ice deposits that may impair function.

When the airplane is hangared to melt snow, any melted snow may freeze again if the airplane is subsequently moved into subzero temperatures. Any measures taken to remove frozen deposits while the airplane is on the ground must also prevent the possibility of refreezing of the liquid.

Following snow removal, should freezing precipitation continue, the airplane surface should be treated for anti-icing.

Frost Removal

Heavy frost that cannot be removed by wiping with a gloved hand or soft towel must be removed by placing the airplane in a warm hangar or by the application of a deicing fluid.

After removal of all frost from the airplane exterior, check all external components for damage that may have occurred during frost removal.

Ice Removal

Moderate or heavy ice and residual snow deposits should be removed with a deicing fluid. No attempt should be made to remove ice deposits or break an ice bond by force.

After completing the deicing process, the airplane should be inspected to ensure that its condition is satisfactory for flight. All external surfaces should be examined for residual ice or snow, particularly in the vicinity of control surface gaps and hinges. Static ports should be carefully inspected for any signs of obstruction.

Control surfaces should be moved to ascertain that they have full and free movement. The landing gear mechanism, doors, wheel wells, uplocks and microswitches should be checked for ice deposits that may impair function.

When the airplane is hangared to melt ice, any melted ice may freeze again if the airplane is subsequently moved into subzero temperatures. Any measures taken to remove frozen deposits while the airplane is on the ground must also prevent the possible refreezing of the liquid.

Following ice removal, should freezing precipitation continue, the airplane surface should be treated for anti-icing.

Approved Airplane Deicing/Anti-Icing Fluids

- SAE AMS 1424 Type I
- ISO 11075 Type I
- SAE AMS 1428 Type II
- ISO 11078 Type II
- SAE AMS 1428 Type IV.

Deicing and Anti-Icing Fluid Application

Aircraft deicing fluids may be used diluted or undiluted according to manufacturers' recommendations for deicing. For anti-icing purposes, the fluids should always be used undiluted. Deicing fluids may be applied either heated or unheated.

General recommendations for deicing and anti-icing treatments may be summarized as follows:

1. Cold applications of deicing fluid can be achieved with normal spray equipment, operating at about 60-80 psig air pressure.
2. Hot applications should be carried out with a temperature of 180-200°F (82-93°C).
3. Remove as much heavy snow as possible before applying deicing fluids.
4. A stream or spray of fluid should be sufficiently coarse to float away loose pieces of ice.
5. Anti-icing of ice-free airplanes does not required heated fluid. In such cases, the deicing fluid should not be diluted in order to obtain maximum efficiency per pound of applied fluid.
6. Should one system of application be desired for both deicing and anti-icing treatment, the use of hot, concentrated fluid may be a logical compromise.

NOTE: As temperature decreases, the viscosity of deicing fluid increases; therefore, deicing fluids should not be stored outside and unheated during cold weather.

Cleaning

Exterior Painted Surfaces

CAUTION: Polyester urethane undergoes a curing process for a period of 30 days after application. Wash uncured painted surfaces with a mild non-detergent soap (MILD detergents can be used on urethane finishes) and cold or lukewarm water only. Use soft cloths, keeping them free of dirt and grime. Any rubbing of the surface should be done gently and held to a minimum to avoid damaging the paint film. Rinse thoroughly with clear water. Stubborn oil or soot deposits may be removed with automotive tar removers.

Prior to cleaning, cover the wheels, making certain the brake discs are covered. Attach the pitot cover securely, and plug or mask off all other openings. Be particularly careful to mask off all static air buttons before washing or waxing. Use special care to avoid removing lubricant from lubricated areas.

Washing may be accomplished by flushing away loose dirt with clean water, then washing with a mild soap and water, using soft cleaning cloths or a chamois. Avoid harsh, abrasive or alkaline soaps or detergents which could cause corrosion or scratches. Thorough clear-water rinsing prevents buildup of cleaning agent residue, which can dull the paint's appearance. To remove oily residue or exhaust soot, use a cloth dampened with an automotive tar remover. Wax or polish the affected area if necessary.

WARNING: Do not expose elevator, rudder, and aileron trim tab hinge lines and their pushrod systems to the direct stream or spray of high-pressure soap-and-water washing equipment. Fluid dispensed at high pressure could remove the protective lubricant, allowing moisture from heavy or prolonged rain to collect at hinge lines, and then to freeze at low temperatures. After high-pressure or hand washing, and at each periodic inspection, lubricate trim tab hinge lines and trim tab pushrod end fittings (Brayco 300 per Federal Specification VV-L-800 preferred). See Consumable Materials.

When using high-pressure washing equipment, keep the spray or stream clear of wheel bearings, propeller hub bearings, etc., and openings such as pitot tubes, static air buttons, battery and avionics equipment cooling ducts which should be securely covered or masked off. Avoid directing high-pressure sprays toward the fuselage, wings, and empennage from the rear, where moisture and chemicals might more easily enter the structure, causing corrosion damage to structural members and moving parts.

CAUTION: When cleaning wheel well areas with solvent, especially if high-pressure equipment is used, exercise care to avoid washing away grease from landing gear components. After washing the wheel well areas with solvent, lubricate all lubrication points, or premature wear may result.

During the curing period, do not make prolonged flights in heavy rain or sleet, and avoid all operating conditions that might cause abrasion or premature finish deterioration.

CAUTION: Do not apply wax, polish, rubbing compound, or abrasive cleaner to any uncured painted surface. Use of such items can permanently damage the surface finish. Also, waxes and polishes seal the paint from the air and prevent curing.

Waxing of polyester urethane finishes, although not required, is permitted; however, never use abrasive cleaner-type waxes, polishes, or rubbing compounds, as these products cause eventual deterioration of the characteristic urethane gloss.

For waxing, select a high quality automotive or aircraft waxing product. Do not use a wax containing silicones, as silicone polishes are difficult to remove from surfaces. A buildup of wax on any exterior paint finish will yellow with age; therefore, wax should be removed periodically. Generally, aliphatic naphtha is adequate and safe for this purpose.

NOTE: Before returning the airplane to service, remove all masking and coverings, and relubricate as necessary.

Windows and Windshields

Windows

The plastic windows should be kept clean and waxed. To prevent scratches, wash the windows carefully with plenty of mild soap and water, using the palm of the hand to dislodge dirt and mud. Flood the surface with clean water to rinse away dirt and soap. After rinsing, dry the windows with a clean, moist chamois. Rubbing the surface of the plastic with a dry cloth should be avoided, as it builds up an electrostatic charge on the surface, which attracts dust particles.

If oil or grease is present on the surface of the plastic, remove it with a cloth moistened with kerosene, aliphatic naphtha, or hexene, then rinse the surface with clear water. Never use gasoline, benzine, alcohol, acetone, carbon tetrachloride, fire-extinguisher or anti-ice fluid, lacquer thinner, or glass cleaner. These materials will soften the plastic and may cause it to craze.

If it is desired to use a commercial cleaner to clean the plastic windows, use only cleaners that are approved by Beech Aircraft Corporation and follow the directions on the container. It will not be necessary to apply wax to windows after use of commercial cleaners, as these cleaners contain wax, as well as cleaning agents.

After thoroughly cleaning, wax the surface with a good grade of commercial wax that does not have an acrylic base. The wax will fill in minor scratches and help prevent further scratching. Apply a thin, even coat of wax and bring it to a high polish by rubbing lightly with a clean, dry, soft, flannel cloth. Do not use a power buffer; the heat generated by the buffing pad may soften the plastic.

Windshields

Glass windshields with antistatic coating should be cleaned as follows:

1. Wash excessive dirt and other substances from the glass with clean water.
2. Clean the windshield with mild soap and water or a 50/50 solution of isopropyl alcohol and water. Wipe the glass surface in a straight rubbing motion with a soft cloth or sponge. Never use any abrasive materials or any strong acids or bases to clean the glass.
3. Rinse the glass thoroughly and dry, but do not apply wax.

Surface Deice Boot Cleaning

The deice boots are made of soft, flexible stock, which may be damaged if fuel hoses are dragged over the surface of the boots or if ladders and platforms are rested against them. Keep deice boots free of oil, fuel, paint remover, solvents, and other injurious substances. Deice boots should be cleaned regularly with a mild soap and water solution. Refer to the AMM for cleaning procedures.

Engine

Clean the engine with neutral solvent. Spray or brush the fluid over the engine, then wash off with water and allow to dry.

■ - - - - - ■
■ **CAUTION:** Do not use solutions that may attack rubber or ■
■ plastic. Protect engine switches, controls and seals; fluid ■
■ applied at high pressure can unseat seals, resulting in con- ■
■ tamination of the sealed systems. ■

Compressor Washing

There are two types of compressor washing, desalination wash and performance recovery wash.

The desalination wash is used to remove salt deposits while the performance recovery wash is used to remove baked-on deposits. Refer to the AMM for washing procedures.

External Surface Washing

Fresh water external washing is recommended when an engine is contaminated with salt or corrosive chemicals such as those found in industrial smog.

Engine Surface Salt Contamination

When the exterior surface of the engine is contaminated with salt, it should be washed clean with water prior to flight of the airplane. Demineralized water is not required for this purpose. At no time should an engine be left in a contaminated (salted) condition for any extended period of time (such as overnight).

Interior Care

Leather or Vinyl

Dust occasionally. To remove almost any stain, wash it in accordance with the following:

NOTE: Never use saddle soap, furniture polishes, oils, varnishes, ammonia water, or solvents of any kind.

1. Use lukewarm water.
2. With Castile, Ivory or any other mild soap, work up a thin layer of suds on a piece of cheesecloth and apply to the stained area.
3. With a piece of cheesecloth dampened in clean water, remove the soap film.
4. Dry the dampened area with a dry, soft cloth.

CAUTION: The colors of many leathers may only be accomplished by surface dye processing. The color may be rubbed off by continuously dragging hard or coarse material across the leather. While working in the cabin, use protective covers on the leather upholstery. Use only mild detergent with a soft cloth to clean soiled leather.

Fabrics

Dust has impurities which affect fabrics. Vacuum fabrics often. Dry cleaning should be done at regular intervals before excessive soil has accumulated. The actual cleaning of draperies and upholstery must be performed by a professional dry cleaner. Very few fabrics are washable.

Laminate

The decorative surface may be readily cleaned with warm water and mild soap, The use of abrasive or "special" cleansers should be avoided. Stubborn stains may be removed with organic solvents or two minutes exposure to a hypochlorite bleach such as "Clorox," followed by a clean water rinse.

Toilet Servicing

Dry Non-Flushing

The dry nonflushing type toilet may be serviced with either a dry powder toilet chemical or an appropriately sized plastic bag liner; however, the toilet container should be removed from the airplane, emptied and cleaned after each period of use.

Monogram

NOTE: During cold weather operation, add an ethylene glycol base automotive antifreeze to the toilet with a ratio of water to antifreeze similar to that used for an automobile.

1. Open the hinged door on the front of the toilet cabinet.
2. Depress the lock ring of the flush hose guide. Disconnect the coupling on the right side at the front of the waste container top.
3. Drain any residue of flush liquid in the hose by partially disengaging the plug from the quick disconnect and manipulating the hose to assist drainage.
4. Remove the flush hose from the quick disconnect coupling and place the hose in the retaining clip provided on the underside of the toilet mounting plate.
5. Install the plug attached to the quick disconnect coupling to seal the coupling.

6. Close the blade valve at the bottom of the toilet bowl by pushing the actuator handle until the valve is fully closed.
7. Press the two Press-Loc fasteners on each side of the blade valve actuator to unlock the waste container.
8. Remove the waste container from the toilet assembly by pulling the recessed carrying handle on top of the waste container.
9. Invert the tank over a commode or other suitable sanitary disposal station and pull out the blade valve to empty the waste container contents.
10. Pour approximately two quarts of fresh water into the waste container. Push in on the blade valve and slosh the water for a few seconds.
11. Drain the waste container as in step "9".
12. Repeat steps "10" and "11" as required.

NOTE: Commercial detergents and disinfectants may be included in the rinse water if desired.

13. Service the waste container with two quarts of fresh water and three ounces of DG-19 chemical; refer to the AMM. Push the blade valve in.
14. Align the waste container and cabinet tracks, then push the waste container in. Engage the waste container latch.
15. Remove the male plug and connect the quick-disconnect fitting at the waste container.
16. Depress the flush switch and check for correct flushing action and the absence of leaks. Close the cabinet door.

NOTE: If the toilet is to remain inactive for an extended period of time, empty the water chemical solution and thoroughly flush the system with fresh water, then drain the system.

Alamo

NOTE: During cold weather operation, add "Clean-Flush" antifreeze to the waste container and the flushing liquid reservoir as instructed on the antifreeze container.

1. Initial charge of the flushing liquid reservoir is approximately two quarts of water mixed with 2 oz. of "Clean-Flush" chemical per each quart of water. The reservoir should be filled to the line marked "Fill To Here" on the inner wall of the reservoir.

NOTE: The flushing liquid needs changing only occasionally, depending upon toilet usage, usually once to every 5 to 10 times that the waste container is serviced. If the flushing liquid has been changed recently and appears to have the correct chemical balance, it does not necessarily need changing.

2. To change the flushing liquid, activate the toilet pump by inserting a small object (such as a pencil) into the hole marked "Service Switch". Maintain contact for several seconds until the flushing liquid has been pumped into the waste container.
3. Empty the waste container as per Alamo Waste Container Servicing (refer to AMM, chapter 38).
4. Clean the toilet assembly inside and out with Lysol spray or equivalent (obtain locally) to provide a disinfected, more hygienic and odor-free toilet.
5. Reinstall the waste container as directed under Alamo Waste Container Servicing (refer to AMM, chapter 38) and repeat step "1".
6. Close the bowl assembly and press the fastener into place. Stow the hanger bracket and close the upholstered seat assembly onto the toilet assembly.

Lamp Replacement Guide

Item	Number
Exterior	
Underwing Entry Light	4174
Ice Inspection Light	A7079B-24
Landing Lights	4596
Beacons	Refer to Parts Catalog and Maintenance Manual
Tail Floodlight	1982SP
Tail Navigation Light	4587
Wing Navigation Light	Refer to Parts Catalog and Maintenance Manual
Wing-tip Recognition Light	Refer to Parts Catalog and Maintenance Manual
Wing-tip High Intensity Light	Refer to Parts Catalog and Maintenance Manual
Passenger Compartment	
Spar Cover Light	101-380065-1
Cabin Door Handle Lock Light	1864
Cabin Sign Light	1202-300
Reading Light	1495X
Step Light	1864
Threshold Light	MS25231-313
Exit Lights	1450 and 425
Cabin Door Hook Observation Light	1873
Cabin Indirect Lights	Refer to Parts Catalog and Maintenance Manual
Cockpit	
All Edge-lighted Placards	D158-100-5
Fuel Quantity Indicator Light	267
Instrument Indirect Lights (under glareshield)	1864
Control Wheel Map Light	1495
Overhead Floodlight	303
Lights for all other Instruments, Indicators, Annunciators, and Switches	327

