

Engine Limits PT6A-65AR, PT6A-65R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1295	4000		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1173	3625		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	56.0		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-65AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1295	4000		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	58.0		60 Min.	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	-40 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-67AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1350	4170		800	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770		800	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				750	56.0		60 Min.	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100(20)		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	10 to 99

Engine Limits PT6A-67AF

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT °C	Ng RPM %	Np RPM	Oil Pressure PSIG	Oil Temp °C
Takeoff	1424	4400		855	104.0	1700	90 to 135	0 to 110
MAX. Continuous	1220	3825		840	104.0	1700	90 to 135	0 to 110
MIN Idle (Run)				750	56.0		60 Min	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100(20)		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			765		1650	90 to 135	10 to 99

Engine Limits PT6A-67R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1424	4400	835	855	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770	820	840	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				755	56		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			765		1650	90 to 135	10 to 99

Propeller & Propeller Limits
 Hartzell HC-B5MP-3C/M10876AS or HC-B5MP-3C/M10876ANS
 Maximum dia. 111.0 inch, minimum dia. 110.7 inch
 Pitch settings, high 79.0°, low 16.5°, reverse -11.0° at 42 inch station.
 OR:
 Hartzell HC-B5MP-3F/M11276NS
 Maximum dia. 115.2 inch, minimum dia. 114.7 inch
 Pitch settings, high 83.1°, low 13.9°, reverse -10.0° at 42 inch station.
 (PT6A-45R, PT6A-65B, PT6A-65AR, PT6A-65R, or PT6A-65AG)

Propeller & Propeller Limits
 Hartzell HC-B5MA-3D/M11276 or HC-B5MA-3D/M11276N (Thru s/n 802A-0073) HC-B5MA-3D/M11276NS (s/n 802A-0074 & Subs.) See Note 5
 Maximum dia. 115.2 inch, minimum dia. 114.7 inch
 Pitch settings, high 83.1°, low 13.9°, reverse -10.0° at 42 inch station.
 (PT6A-67R, PT6A-67AF, PT6A-67AG)

Airspeed Limits (CAS)
 VNE (Never Exceed) 227 mph (197 knots) below 12,500 lbs.
 *VNE (Never Exceed) 169 mph (147 knots) above 12,500 lbs.
 *VA (Maneuvering) 169 mph (147 knots)
 *VNO (Max. structural cruise) 169 mph (147 knots)
 **VNE (Never Exceed) 167 mph (145 knots) above 12,500 lbs.
 **VA (Maneuvering) 167 mph (145 knots)
 **VNO (Max. structural cruise) 167 mph (145 knots)
 VFE (Flap extended) 142 mph (123 knots)
 *For s/n 802A-0003 thru 802A-0058
 **For s/n 802A-0060 & subs.

C.G. Range
 (+23.0) to (+27.0) at 15,000 lbs. (with PT6A-45R)
 (+23.0) to (+27.0) at 16,000 lbs. (with PT6A-65 or -67 series)
 (+23.0) to (+30.59) at 14,800 lbs. (with PT6A-65 or -67 series)
 (+23.0) to (+32.0) at 10,200 lbs. (with Swathmaster Spreader)
 (+23.0) to (+35.0) at 10,300 lbs.
 Straight-line variation between points.

Max Weight
 15,000 lbs. (with PT6A-45R) in sprayer configuration
 14,850 lbs. (with PT6A-45R) in duster configuration
 15,000 lbs. (with PT6A-45R) in fire bomber configuration
 16,000 lbs. (with PT6A-65 series or PT6A-67 series) in sprayer configuration
 15,200 lbs. (with PT6A-65 series or PT6A-67 series) in duster configuration
 16,000 lbs. (with PT6A-65 series or PT6A-67 series) in fire bomber configuration

No. of Seats
 1 (+84.0)
 1 crew (+123.0) when optional crew seat is installed in accordance with Dwg. 11742

Max. Hopper Load
 8,000 lbs. (+20.5) with PT6A-45R
 8,800 lbs. (+20.5) with PT6A-65 series or PT6A-67 series

Fuel Capacity	256 gal. (+33.0) (250 gal. usable capacity, one 127 gal. tank in each wing) 308 gallons optional (302 gallons usable) 380 gallons optional (374 gallons usable)		
Oil Capacity	2.5 gals. (1.5 gals. usable)		
Control	Elevator	Up $29^{\circ} \pm 1^{\circ}$	Down $15^{\circ} \pm 1^{\circ}$
Surface	Elevator tab	Up $8^{\circ} \pm 1.5^{\circ}$	Down $11^{\circ} \pm 1.5^{\circ}$
Movements	Rudder	Left $24^{\circ} \pm 1^{\circ}$	Right $24^{\circ} \pm 1^{\circ}$
	Aileron	Up $17^{\circ} \pm 1^{\circ}$	Down $13^{\circ} \pm 1^{\circ}$
	Flaps	---	Down $30^{\circ} \pm 1.5^{\circ}$
Serial Nos. Eligible	802A-0003 and subsequent. Equipment The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following equipment is required: a. Operative pre-stall warning system (Dwg. 50130) b. 24 volt electrical system c. Slip indicator d. Fire Extinguisher (Dwg 10564)		
Agricultural Dispersal Equipment	The following agricultural dispersal equipment may be installed: None, or any of the following: a. Dust spreader (Dwg. 80634 or 80697 or 80776) b. Standard spray system (Dwg. 80472 or 80745) c. Micronair spray system (Dwg. 80678) d. Fire Gate spray system (Dwg. 80745) e. Automatic flagger (Dwg. 80612) f. Drift finder smoker (Dwg. 80610) g. Crop Hawk, Micronair, Accuflo flowmeter (Dwg. 80472) h. 48 extra nozzles (Dwg. 80037) i. Night working lights (Dwg. 60382) j. Hopper rinse system (dwg. 80900) k. Foam tank (dwg. 80576)		
Optional Equipment	Conventional fire bomber gate and vent (Dwg. 81196) Computerized fire bomber gate and vent (Dwg. 80540) Air conditioning system (Dwg. 60414 or Dwg 60719) Cockpit heater (Dwg. 51477) Fuel flowmeter (Dwg. 60286 or 60499) Attitude gyro (Dwg. 51625) Turn coordinator (Dwg. 51625) King COM or NAV/COM radio (Dwg. 60616) Windshield washer (Dwg. 60439) Windshield wiper (Dwg. 60177) King transponder (Dwg. 60434) King LMH 3142 radio (Dwg. 60436) King DME (Dwg.60451) King HSI/Slaved compass (Dwg. 60451) King audio console (Dwg. 60451) Loran-C (Dwg. 60451) King Automatic direction finder (Dwg. 60724) King Marker Beacon (Dwg. 60473) Narco ELT (Dwg. 60554) Dorne and Margolin ELT (Dwg. 60684) Garmin GPS 150 (Dwg. 60619) Trimble GPS (Dwg. 60978) N.A.T. Audio Control Panel (Dwg. 60493) King KN53 NAV (Dwg. 60453) ACK ELT (dwg. 60617) Public Address/Siren (dwg. 60922) Directional Gyro (dwg. 51625)		

	S-Tec Autopilot (Dwg. 70656) King KLX-135 GPS/COM (Dwg. 60939) Vertical speed indicator (dwg. 51625) King high frequency radio (Dwg. 61001) King Radar altimeter (Dwg. 61004) King GPS (Dwg. 60992) Crew Seat (Dwg. 11742)
Certification Basis	FAR 23, dated February 1, 1965, through Amendment 23-42, effective February 4, 1991 with the following sections below being defined as appropriate or inappropriate for the special purpose use of agricultural spraying, dusting, and seeding and for the special purpose use of forest and wildlife conservation (fire fighting) per FAR 21.25 (b)(1) and 21.25(b)(2); including the special purpose of Drug Eradication in accordance with FAR 21.25(b)(7) for the application of herbicides. At Maximum Weight: Defined as the maximum restricted category gross weight the airplane is to be operated and includes at least full fuel, full operating liquids, crew, baggage, and full hopper. Appropriate FAR 23 Requirements: 23.21, 23.23, 23.25(a), 23.29,23.49(a)(c), 23.65(c), 23.143, 23.171, 23.173(c), 23.201, 23.231(a), 23.233, 23.235, 23.251, All of Subpart C - Structures, 23.629, 23. 721, 23.723, 23.725, 23.726, 23.727, 23.731, 23.733, 23.1041, 23.1043, 23.1045, 23.1323, 23.1505, 23.1545, 23.1585(a). Serial numbers 802A-0003 thru 802A-0083 do comply with 23.629(f). At Baseline Weight: Defined as a reference weight not to be less than 75 percent of the Maximum Weight(above). FAR 23 through Amendment 23-42 with the exception of the following requirements deemed inappropriate per FAR 21.25(a)(1). Inappropriate FAR 23 Requirements: 23.1, 23.3, 23.45(b)(c)(d)&(e), 23.51, 23.75, 23.221, 23.629(f)(1), 23.777(f)(1),(h)(1)(ii), 23.781(a),(b), 23.867, 23.901(d), 23.954, 23.1303(e), 23.1321(d), 23.1325(b)(3),(e), 23.1351(d)(1), 23.1505(c), 23.1587(a)(5), (a)(6), (a)(7), (a)(8). Exemption No. 5574 [23.49 (b) (1)] 61 knot stall speed Equivalent Safety Finding to FAR 23.562, dated September 14, 1992 Equivalent Safety Finding to FAR 23.677 (a), March 23, 1999
Datum	Wing Leading edge
Leveling	Screw heads on engine inlet air scoop
Baggage	One baggage compartment at (+105). Max capacity 60 lbs.
Production Basis	PC2SW
Export Eligibility	Aircraft will be eligible for issuance of an Export Certificate of Airworthiness subject to compliance with FAR Part 21.
Note 1	FAA approved Airplane Flight Manual dated December 17, 1992, or later FAA approved revision is required. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity location must include the following unusable fuel: 40 lbs. at (+33.0).
Note 2	The following information on placards pertaining to flight and operating limitations must be displayed: 1. On all canopy doors: RESTRICTED. 2. Attached to skin of aircraft: (a) Next to fuel filler caps: FUEL 127 * U.S. GAL. JET A. FUEL TANKS ARE INTERCONNECTED. ALLOW SUFFICIENT TIME FOR FUEL LEVEL TO EQUALIZE BEFORE TOP-OFF OF TANK. NO AEROMATIC FUEL.

- * Substitute "153" when optional 153 gallon tanks are installed.
- * Substitute "189" when optional 189 gallon tanks are installed

- (b) Next to fuel filler caps: CAUTION BEFORE REFUELING AIRCRAFT CONNECT GROUNDING CONNECTION TO LANDING GEAR TOW RING.

FOR OPERATION BELOW 40°F ANTI-ICING ADDITIVE PER MIL-I-27686 OR PHILLIPS PFA-55MB MUST BE BLENDED INTO THE AIRCRAFT FUEL IN CONCENTRATIONS NOT LESS THAN 0.06% OR MORE THAN 0.15% BY VOLUME.

- (c) Next to Oil Filler Cap: OIL TANK 10.0 QTS CAP.
- (d) Next to pitot static buttons: STATIC AIR - KEEP CLEAN.
- (e) On side of engine air scoop: LEVELING POINT.
- (f) On baggage door: 60 POUNDS MAXIMUM BAGGAGE.
- (g) On top of Hopper Lid: FOR AGRICULTURAL PURPOSES:
MAX. HOPPER LOAD 8800★ POUNDS.
MAX. AIRCRAFT GROSS WT. 16000★★ POUNDS
- ★Substitute 8000 when engine is PT6A-45R
 - ★★Substitute 15000 when engine is PT6A-45R
- (h) On top of engine cowl when computerized fire bomber gate and vent is installed: HYD. FLUID 2.6 GAL. CAP.
- (i) Above canopy door handles: OPEN
- (j) On L/H Canopy door: EMERGENCY EXIT PULL RESCUE
- (k) Below windshield washer fill: WINDSHIELD WASHER FILL
- (l) Below Hopper Rinse Fill: HOPPER RINSE TANK FILL
- (m) In loader sear compartment (if installed): OCCUPANT MUST ATTACH SEATBELT AND SHOULDER HARNESS AND WEAR A D.O.T. APPROVED OR MIL-SPEC CRASH HELMET.

3. In full view of pilot:

- (a) THIS AIRPLANE MUST BE OPERATED IN RESTRICTED CATEGORY IN ACCORDANCE WITH THE AIRPLANE FLIGHT MANUAL. NO ACROBATIC MANEUVERS, INCLUDING SPINS. DESIGN MANEUVERING SPEED 162 MPH. MAX FLAP DOWN SPEED 142 MPH. MAX CROSSWIND VELOCITY LANDING 23 MPH. ALT. LOSS FROM STALL 280 FT.
- (b) THE OPERATION OF THIS AIRPLANE IS LIMITED TO DAY AND NIGHT★ VFR FLIGHT CONDITIONS. FLIGHT INTO KNOWN ICING CONDITIONS IS PROHIBITED.
- ★Delete the words "AND NIGHT" unless aircraft is equipped with operable lighting package.
- (c) PUSH STICK FORWARD TO UNLOCK TAILWHEEL.

- (d) PARK BRAKE OPERATION:
ON: DEPRESS PEDALS AND PULL LEVER.
OFF: DEPRESS PEDALS.
- (e) DO NOT OPERATE ENGINE ABOVE 2000 FT/LBS TORQUE ON GROUND RUN UP OR TAIL WILL COME UP. FLIGHT IN VICINITY OF THUNDERSTORMS PROHIBITED. FLIGHT IN VISIBLE MOISTURE BELOW 40°F PROHIBITED. FLIGHT BELOW 0°F PROHIBITED. USE PRIST WHEN OPERATING BELOW 40°F. MAXIMUM OPERATIONAL ALTITUDE 12,500 FT. MSL.
- (f) WARNING: DO NOT MOVE POWER LEVER INTO REVERSE POSITION WITH ENGINE STOPPED OR CONTROLS WILL BE DAMAGED.
- (g) DO NOT OPERATE PUMP ABOVE 160 MPH.
- (h) WARNING: SULFUR DUSTING IS PROHIBITED UNLESS SPECIAL FIRE PREVENTION MEASURES ARE INCORPORATED IN AIRCRAFT.
- (i) Warn light placards: LOW FUEL, FUEL FILTER, CHIP DETECT, AIR FILTER, PROP IN BETA, GENERATOR OUT, when installed, RINSE PUMP.
- (j) Next to airspeed indicator: MANEUVERING SPEED 162 MPH IAS.
- (k) Next to compass card: COMPASS CORRECTION WITH RADIOS OFF.
- (l) On boom pressure gauge: BOOM PRESSURE.
- (m) A D.O.T. APPROVED OR MIL-SPEC CRASH HELMET MUST BE WORN WHEN OPERATING THIS AIRCRAFT.
- (n) NO SMOKING
- (o) On engine control quadrant next to Power Lever: REV
At the stop detent: IDLE
On power control Lever: POWER
At respective HI and LO idle positions: FLIGHT and RUN
- (p) On prop control lever: P, on aft end of travel: F, and on start control lever: S
- (q) On canopy doors: DO NOT OPEN DOORS IN FLIGHT. IF DOORS WILL NOT OPEN AFTER OVERTURN KICK OUT WINDOW WITH KNEES OR FEET.
- (r) WARNING TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUD, FOG, OR HAZE, STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS.
- (s) On floor next to Emergency Engine Induction door lever (If Installed): PULL UP FOR EMERGENCY ENGINE INDUCTION SYSTEM
- (t) Below green light at top of upper instrument panel (If Installed): FIRE GATE "ARMED"
- (u) Below yellow caution light at top of upper instrument panel (If Installed): LOW HYDR PRESSURE
- (v) On upper instrument Panel on aircraft configured per drawing 11615: THIS AIRCRAFT COMPLIES WITH THE REQUIREMENTS OF AIR TRACTOR DRAWING 11615. (See Note 4)

- (w) On instrument panel: A STALL DURING SKIDDING TURNS WILL CAUSE THE NOSE TO PITCH DOWN SHARPLY AND RESULT IN A SIGNIFICANT LOSS OF ALTITUDE MAINTAIN COORDINATED FLIGHT AT ALL TIMES
- (x) On the emergency dump pressure gauge bracket forward of the power lever: E-DUMP PRESSURE - MIN 50 PSI*
- (y) On instrument panel if loader seat is installed: LOADER SEAT MUST NOT BE OCCUPIED DURING CHEMICAL APPLICATION OR WHEN P/N 54497 SWATHMASTER SPREADER IS INSTALLED.
- (z) On top of FCU Override Lever (if installed): CAUTION FCU OVERRIDE UNLOCK - PUSH FOR POWER

* Fire bombing models with pneumatic E-dump systems only

NOTE 3 Life Limited airframe parts are listed in the applicable AT-802/802A series Maintenance Manual

NOTE 4 The placard "FLIGHT IN VICINITY OF THUNDERSTORMS PROHIBITED" may be deleted when Lightning-Safe modifications have been incorporated in accordance with drawing 11615.

NOTE 5 AT-802A aircraft prior to s/n 802A-0074 with PT6A-67R, PT6A-67AF, or PT6A-67AG engines installed that have been retrofitted with the p/n 50821-32 side-thrust engine mount must use the Hartzell p/n HC-B5MA-3D/M11276NS propeller.

II - Model AT-802 2 PCLM (Restricted Category) Approved April 27, 1993

Engine Pratt & Whitney PT6A-45R, PT6A-65AR, PT6A-65B, PT6A-65R, PT6A-65AG, PT6A-67R, PT6A-67AG, or PT6A-67AF

Fuel ASTM D1655-70, JET A, JET A1, JET B, MIL-T-5624, JP-4, JP-8

Oil MIL-L-7808, MIL-L-23699

Engine Limits PT6A-45R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1173	3625		800	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1020	3150		800	104.0	1700	90 to 135	0 to 99
MIN Idle (Run)				700	56.0		60 Min.	-40 to 99
Starting			800	1000 (5)			0 to 200	-40 to 99
Transient		5100		850 (20)	104.0	1870		
MAX Reverse	900	1000		800		1650	90 to 135	0 to 99

Engine Limits PT6A-65AR, PT6A-65R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1295	4000		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1173	3625		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	56.0		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-65AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1295	4000		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	58.0		60 Min.	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	-40 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-65B

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1100	3625		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1100	3625		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				700	58.0		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-67R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1424	4400	835	855	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770	820	840	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				755	68		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			765		1650	90 to 135	10 to 99

Engine Limits PT6A-67AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1350	4170		800	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1220	3770		800	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				750	56.0		60 Min.	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 TO 110
MAX Reverse	900			760		1650	90 to 135	10 to 99

Engine Limits PT6A-67AF

Power Setting	SHP	Torque Ft-Lb	Nominal ITT °C	Maximum Observed ITT °C	Ng RPM %	Np RPM	Oil Pressure PSIG	Oil Temp °C
Takeoff	1424	4400		855	104.0	1700	90 to 135	0 to 110
MAX. Continuous	1220	3825		840	104.0	1700	90 to 135	0 to 110
MIN Idle (Run)				755	56.0		60 Min	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100(20)		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			765		1650	90 to 135	10 to 99

Propeller & Propeller Limits	Hartzell HC-B5MP-3C/M10876AS or HC-B5MP-3C/M10876ANS Maximum dia. 111.0 inch, minimum dia. 110.7 inch Pitch settings, high 79.0°, low 16.5°, reverse -11.0° at 42 inch station. OR: Hartzell HC-B5MP-3F/M11276NS Maximum dia. 115.2 inch, minimum dia. 114.7 inch Pitch settings, high 83.1°, low 13.9°, reverse -10.0° at 42 inch station. (PT6A-45R, PT6A-65B, PT6A-65AR, PT6A-65R, PT6A-65AG)
Propeller & Propeller Limits	Hartzell HC-B5MA-3D/M11276 or HC-B5MA-3D/M11276N (Thru s/n 802-0076) Hartzell HC-B5MA-3D/M11276NS (s/n 802-0078 & Subs.) See Note 5 Maximum dia. 115.2 inch, minimum dia. 114.7 inch Pitch settings, high 83.1°, low 13.9°, reverse -10.0° at 42 inch station. (PT6A-67R, PT6A-67AF, PT6A-67AG)
Airspeed Limits (CAS)	VNE (Never Exceed) 227 mph (197 knots) below 12,500 lbs. *VNE (Never Exceed) 169 mph (147 knots) above 12,500 lbs. *VA (Maneuvering) 169 mph (147 knots) *VNO (Max. structural cruise) 169 mph (147 knots) **VNE (Never Exceed) 167 mph (145 knots) above 12,500 lbs. **VA (Maneuvering) 167 mph (145 knots) **VNO (Max. structural cruise) 167 mph (145 knots) VFE (Flap extended) 142 mph (123 knots) *For s/n 802-0001 thru 802-0059 **For s/n 802-0064 & subs.
C.G. Range	(+23.0) to (+27.0) at 15,000 lbs. (with PT6A-45R) (+23.0) to (+27.0) at 16,000 lbs. (with PT6A-65 or -67 series) (+23.0) to (+30.59) at 14,800 lbs. (with PT6A-65 or -67 series) (+23.0) to (+32.0) at 10,200 lbs. (with Swathmaster Spreader) (+23.0) to (+35.0) at 10,300 lbs. Straight line variation between points.
Max Weight	15,000 lbs. (with PT6A-45R) in sprayer configuration 14,850 lbs. (with PT6A-45R) in duster configuration 16,000 lbs. (with PT6A-65 series or PT6A-67 series) in sprayer configuration 15,200 lbs. (with PT6A-65 series or PT6A-67 series) in duster configuration 16,000 lbs. (with PT6A-65 series or PT6A-67 series) in fire bomber configuration 15,000 lbs. (with PT6A-45R) in fire bomber configuration
No. of Seats	2 (+84), (+123)
Max. Hopper Load	8,000 lbs. (+20.5) with PT6A-45R 8,800 lbs. (+20.5) with PT6A-65 series or PT6A-67 series
Fuel Capacity	256 gal. (+33.0)

	(250 gal. usable capacity, one 127 gal. tank in each wing)		
	308 gallons optional (302 gallons usable)		
	380 gallons optional (374 gallons usable)		
Oil Capacity	2.5 gals. (1.5 gals. usable)		
Control	Elevator	Up $29^{\circ} \pm 1^{\circ}$	Down $15^{\circ} \pm 1^{\circ}$
Surface	Elevator tab	Up $8^{\circ} \pm 1.5^{\circ}$	Down $11^{\circ} \pm 1.5^{\circ}$
Movements	Rudder	Left $24^{\circ} \pm 1^{\circ}$	Right $24^{\circ} \pm 1^{\circ}$
	Aileron	Up $17^{\circ} \pm 1^{\circ}$	Down $13^{\circ} \pm 1^{\circ}$
	Flaps	---	Down $30^{\circ} \pm 1.5^{\circ}$
Serial Nos. Eligible	802-0001 and subsequent.		
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following equipment is required:		
	a. Operative pre-stall warning system (Dwg. 50130)		
	b. 24 volt electrical system		
	c. Slip indicator		
	d. Fire Extinguisher (Dwg. 10564)		
Agricultural Dispersal Equipment	The following agricultural dispersal equipment may be installed: None, or any of the following:		
	a. Dust spreader (Dwg. 80634 or 80697 or 80776)		
	b. Standard spray system (Dwg. 80472 or 80745)		
	c. Micronair spray system (Dwg. 80678)		
	d. Fire gate spray system (Dwg. 80745)		
	e. Automatic flagger (Dwg. 80612)		
	f. Drift finder smoker (Dwg. 80610)		
	g. Crop Hawk, Micronair, Accuflo flowmeter (Dwg. 80472)		
	h. 48 extra nozzles (Dwg. 80037)		
	i. Night working lights (Dwg. 60382)		
	j. Hopper rinse system (dwg. 80900)		
	k. Foam tank (dwg. 80576)		
Optional Equipment	Conventional fire bomber gate and vent (Dwg. 81196)		
	Computerized fire bomber gate and vent (Dwg. 80540)		
	Air conditioning system (Dwg. 60414 or Dwg. 60719)		
	Cockpit heater (Dwg. 51477)		
	Fuel flowmeter (Dwg. 60286 or 60499)		
	Attitude gyro (Dwg. 51625)		
	Turn coordinator (Dwg. 51625)		
	King COM or NAV/COM radio (Dwg. 60616)		
	Windshield washer (Dwg. 60439)		
	Windshield wiper (Dwg. 60296)		
	King transponder (Dwg. 60434)		
	King LMH 3142 radio (Dwg. 60436)		
	King DME (Dwg. 60451)		
	King HSI/Slaved compass (Dwg. 60451)		
	King audio console (Dwg. 60451)		
	Loran-C (Dwg. 60451)		
	King - Automatic direction finder (Dwg. 60724)		
	Garmin GPS 150 (Dwg. 60619)		
	Trimble GPS (Dwg. 60978)		
	N.A.T. Audio Control Panel (Dwg. 60493)		
	King KN53 NAV (Dwg. 60453)		
	S-Tec Autopilot (dwg. 70656)		
	King KLX-135 GPS/COM (dwg. 60939)		
	ACK ELT (dwg. 60617)		
	Narco ELT (Dwg. 60554)		
	Dorne & Margolin ELT (Dwg. 60684)		
	Public Address/Siren (dwg. 60922)		

	<p>Directional Gyro (dwg. 51625) Vertical Speed indicator (dwg. 51625) King high frequency radio (Dwg. 61001) King radar Altimeter (Dwg. 61004) King GPS (Dwg. 60992) King Marker beacon (Dwg. 60473)</p>
Certification Basis	<p>FAR 23, dated February 1, 1965, through Amendment 23-42, effective February 4, 1991 with the following sections below being defined as appropriate or inappropriate for the special purpose use of agricultural spraying, dusting, and seeding and for the special purpose use of forest and wildlife conservation (fire fighting) per FAR 21.25 (b)(1) and 21.25(b)(2); including the special purpose of Drug Eradication in accordance with FAR 21.25(b)(7) for the application of herbicides.</p> <p>At Maximum Weight: Defined as the maximum restricted category gross weight the airplane is to be operated and includes at least full fuel, full operating liquids, crew, baggage, and full hopper. Appropriate FAR 23 Requirements: 23.21, 23.23, 23.25(a), 23.29, 23.49(a)(c), 23.65(c), 23.143, 23.171, 23.173(c), 23.201, 23.231(a), 23.233, 23.235, 23.251, All of Subpart C - Structures, 23.629, 23.721, 23.723, 23.725, 23.726, 23.727, 23.731, 23.733, 23.1041, 23.1043, 23.1045, 23.1323, 23.1505, 23.1545, 23.1585(a).</p> <p>Serial numbers 802-0001 thru 802-0082 do comply with 23.629(f).</p> <p>At Baseline Weight: Defined as a reference weight not to be less than 75 percent of the Maximum Weight(above). FAR 23 through Amendment 23-42 with the exception of the following requirements deemed inappropriate per FAR 21.25(a)(1). Inappropriate FAR 23 Requirements: 23.1, 23.3, 23.45(b)(c)(d)&(e), 23.51, 23.75, 23.221, 23.777(f)(1),(h)(1)(ii), 23.781(a),(b), 23.629(f)(1), 23.867, 23.901(d), 23.954, 23.1303(e), 23.1321(d), 23.1325(b)(3),(e), 23.1351(d)(1), 23.1505(c), 23.1587(a)(5), (a)(6), (a)(7), (a)(8).</p> <p>Exemption No. 5574 [23.49 (b) (1)] 61 knot stall speed</p> <p>Equivalent Safety Finding to FAR 23.562, dated September 14, 1992</p> <p>Equivalent Safety Finding to FAR 23.677 (a), dated March 23, 1999</p>
Datum	Wing Leading edge
Leveling Means	Screw heads on engine inlet air scoop
Baggage	One baggage compartment at (+105). Max capacity 60 lbs.
Production Basis	PC2SW
Export Eligibility	Aircraft will be eligible for issuance of an Export Certificate of Airworthiness subject to compliance with FAR Part 21.
Note 1	FAA approved Airplane Flight Manual dated April 27, 1993, or later FAA approved revision is required. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity location must include the following unusable fuel: 40 lbs. at (+33.0).
Note 2	<p>The following information on placards pertaining to flight and operating limitations must be displayed:</p> <ol style="list-style-type: none"> 1. On all canopy doors: RESTRICTED. 2. Attached to skin of aircraft: <ol style="list-style-type: none"> (a) Next to fuel filler caps: FUEL 127 U.S. * GAL. JET A. FUEL TANKS ARE INTERCONNECTED. ALLOW SUFFICIENT TIME FOR FUEL LEVEL TO EQUALIZE BEFORE TOP-OFF OF TANK. NO AEROMATIC FUEL.

- * Substitute "153" when optional 153 gallon tanks are installed
- * Substitute "189" when optional 189 gallon tanks are installed

- (b) Next to fuel filler caps: CAUTION BEFORE REFUELING AIRCRAFT CONNECT GROUNDING CONNECTION TO LANDING GEAR TOW RING.

FOR OPERATION BELOW 40°F ANTI-ICING ADDITIVE PER MIL-I-27686 OR PHILLIPS PFA-55MB MUST BE BLENDED INTO THE AIRCRAFT FUEL IN CONCENTRATIONS NOT LESS THAN 0.06% OR MORE THAN 0.15% BY VOLUME.

- (c) Next to Oil Filler Cap: OIL TANK 10.0 QTS CAP.
- (d) Next to pitot static buttons: STATIC AIR - KEEP CLEAN.
- (e) On side of engine air scoop: LEVELING POINT.
- (f) On baggage door: 60 POUNDS MAXIMUM BAGGAGE.
- (g) On top of Hopper Lid: FOR AGRICULTURAL PURPOSES:
MAX. HOPPER LOAD 8800★ POUNDS.
MAX. AIRCRAFT GROSS WT. 16000★★ POUNDS
- ★Substitute 8000 when engine is PT6A-45R
★★Substitute 15000 when engine is PT6A-45R
- (h) On top of engine cowl when computerized fire bomber gate and vent is installed: HYD. FLUID 2.6 GAL.CAP.
- (i) Above canopy door handles: OPEN
- (j) On L/H Canopy doors: EMERGENCY EXIT PULL RESCUE
- (k) Below windshield washer fill: WINDSHIELD WASHER FILL
- (l) Below Hopper Rinse Fill: HOPPER RINSE TANK FILL

3. In full view of pilot:

- (a) THIS AIRPLANE MUST BE OPERATED IN RESTRICTED CATEGORY IN ACCORDANCE WITH THE AIRPLANE FLIGHT MANUAL. NO ACROBATIC MANEUVERS, INCLUDING SPINS. DESIGN MANEUVERING SPEED 168 MPH. MAX FLAP DOWN SPEED 142 MPH. MAX CROSSWIND VELOCITY LANDING 23 MPH. ALT. LOSS FROM STALL 280 FT.
- (b) THE OPERATION OF THIS AIRPLANE IS LIMITED TO DAY AND NIGHT★ VFR FLIGHT CONDITIONS. FLIGHT INTO KNOWN ICING CONDITIONS IS PROHIBITED.
- ★Delete the words "AND NIGHT" unless aircraft is equipped with operable lighting package.
- (c) PUSH STICK FORWARD TO UNLOCK TAILWHEEL.
- (d) PARK BRAKE OPERATION:
ON: DEPRESS PEDALS AND PULL LEVER.
OFF: DEPRESS PEDALS.

- (e) DO NOT OPERATE ENGINE ABOVE 2000 FT/LBS TORQUE ON GROUND RUN UP OR TAIL WILL COME UP. FLIGHT IN VICINITY OF THUNDERSTORMS PROHIBITED. FLIGHT IN VISIBLE MOISTURE BELOW 40°F PROHIBITED. FLIGHT BELOW 0°F PROHIBITED. USE PRIST WHEN OPERATING BELOW 40°F. MAXIMUM OPERATIONAL ALTITUDE 12,500 FT. MSL.
- (f) WARNING: DO NOT MOVE POWER LEVER INTO REVERSE POSITION WITH ENGINE STOPPED OR CONTROLS WILL BE DAMAGED.
- (g) DO NOT OPERATE PUMP ABOVE 160 MPH.
- (h) WARNING: SULFUR DUSTING IS PROHIBITED UNLESS SPECIAL FIRE PREVENTION MEASURES ARE INCORPORATED IN AIRCRAFT.
- (i) Warn light placards: LOW FUEL, FUEL FILTER, CHIP DETECT, AIR FILTER, PROP IN BETA, GENERATOR OUT, when installed, RINSE PUMP.
- (j) Next to airspeed indicator: MANEUVERING SPEED 168 MPH IAS.
- (k) Next to compass card: COMPASS CORRECTION WITH RADIOS OFF.
- (l) On boom pressure gauge: BOOM PRESSURE.
- (m) A D.O.T. APPROVED OR MIL-SPEC CRASH HELMET MUST BE WORN WHEN OPERATING THIS AIRCRAFT.
- (n) NO SMOKING
- (o) On engine control quadrant next to Power Lever: REV
At the stop detent: IDLE
On power control Lever: POWER
- (p) On prop control lever: P and on aft end of travel: F
- (q) On canopy doors: DO NOT OPEN DOORS IN FLIGHT. IF DOORS WILL NOT OPEN AFTER OVERTURN KICK OUT WINDOW WITH KNEES OR FEET.
- (r) On engine Control Quadrant at respective HI and LO Idle positions: FLIGHT AND RUN.
On Start Control Lever: S.
- (s) WARNING TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUD, FOG, OR HAZE, STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS.
- (t) On floor next to Emergency Engine Induction door lever (If Installed): PULL UP FOR EMERGENCY ENGINE INDUCTION SYSTEM
- (u) Below green light at top of upper instrument panel (If Installed): FIRE GATE "ARMED".
Below yellow caution light at top of upper instrument panel (If Installed): LOW HYDR PRESSURE
- (v) On upper instrument Panel on aircraft configured per drawing 11615: THIS AIRCRAFT COMPLIES WITH THE REQUIREMENTS OF AIR TRACTOR DRAWING 11615.
(See Note 4)

- (w) On instrument panel: A STALL DURING SKIDDING TURNS WILL CAUSE THE NOSE TO PITCH DOWN SHARPLY AND RESULT IN A SIGNIFICANT LOSS OF ALTITUDE MAINTAIN COORDINATED FLIGHT AT ALL TIMES
- (x) On the emergency dump pressure gauge bracket forward of the power lever: E-DUMP PRESSURE - MIN 50 PSI*
- (y) On top of FCU Override Lever (if installed): CAUTION FCU OVERRIDE UNLOCK - PUSH FOR POWER

*Fire bombing models with pneumatic E-dump systems only.

NOTE 3 Life Limited airframe parts are listed in the applicable AT-802/802A series Maintenance Manual

NOTE 4 The placard "FLIGHT IN VICINITY OF THUNDERSTORMS PROHIBITED" may be deleted when Lightning-Safe modifications have been incorporated in accordance with drawing 11615.

NOTE 5 AT-802 aircraft prior to s/n 802-0078 with PT6A-67R, PT6A-67AF, or PT6A-67AG engines installed that have been retrofitted with the p/n 50821-32 side-thrust engine mount must use the Hartzell p/n HC-B5MA-3D/M11276NS propeller.

III - Model AT-602 1 PCLM (Restricted Category), Approved June 6, 1996

Engine Pratt & Whitney PT6A-45R, PT6A-45A, PT6A-45B, PT6A-60AG, PT6A-65AR, PT6A-65B, PT6A-65R, PT6A-65AG.

Fuel ASTM D1655-70, JET A, JET A1, JET B, MIL-T-5624, JP-4, JP-8.
Oil MIL-L-7808, MIL-L-23699.

Engine Limits PT6A-45R, PT6A-45A, PT6A-45B

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1050	3245		800	104.0	1700	90* to 135	10 to 99
MAX. Continuous	1020	3150		800	104.0	1700	90* to 135	0 to 99
MIN Idle (Run)				700	56.0		60 Min.	-40 to 99
Starting			800	1000 (5)			0 to 200	-40 to 99
Transient		5100		850 (20)	104.0	1870	60 Min.	0 to 110
MAX Reverse	900	1000		800		1650	90* to 135	0 to 99

* - PT6A-45A & PT6A-45B minimum oil pressure is 100 PSIG.

Engine Limits PT6A-60AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1050	3245		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1020	3150		775	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				750	58.0		60 Min.	-40 to 99
Starting			800	1000 (5)			0 to 200	-40 to 99
Transient		5100		850 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	10 to 99

Engine Limits PT6A-65AR, PT6A-65R

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1050	3245		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1050	3245		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	56.0		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-65B

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1050	3245		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1050	3245		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				700	58.0		60 Min.	-40 to 99
Starting			700	1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	0 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Engine Limits PT6A-65AG

Power Setting	SHP	Torque Ft-Lb	Nominal ITT°C	Maximum Observed ITT°C	Ng RPM %	Np RPM %	Oil Pressure PSIG	Oil Temp °C
Takeoff	1050	3245		820	104.0	1700	90 to 135	10 to 99
MAX. Continuous	1050	3245		810	104.0	1700	90 to 135	10 to 99
MIN Idle (Run)				715	58.0		60 Min.	-40 to 99
Starting				1000 (5)			0 to 200	-40 to 99
Transient		5100		870 (20)	104.0	1870	40 to 200	-40 to 110
MAX Reverse	900			760		1650	90 to 135	0 to 99

Propeller & Propeller Limits

Hartzell HC-B5MP-3C/M10876AS or HC-B5MP-3C/M10876ANS
 Maximum dia. 111.2 inch, minimum dia. 110.7 inch
 Pitch settings, high 79.0°, low 16.5°, reverse -11.0° at 42 inch station.

Airspeed Limits (CAS)

VNE (Never Exceed) 218 mph (189 knots) below 9,200 lbs.
 VNE (Never Exceed) 162 mph (141 knots) above 9,200 lbs.
 VA (Maneuvering) 162 mph (141 knots)
 VNO (Max. structural cruise) 162 mph (141 knots)
 VFE (Flap extended) 130 mph (113 knots)

C.G. Range

(+17.5) to (+24.0) at 12,500 lbs.
 (+17.5) to (+24.0) at 12,000 lbs.
 (+17.5) to (+24.9) at 11,750 lbs.
 (+17.5) to (+29.5) at 7,700 lbs.

Max Weight (Takeoff)	12,500 lbs.		
Max Weight (Landing)	12,000 lbs.		
No. of Seats	1 (+74.0), 2 (+107.0) with optional crew seat installed per dwg. 11524-40		
Max. Hopper Load	6,500 lbs. (+16.0)		
Fuel Capacity	218 gal. (+33.0) (212 gal. usable capacity, one 108 gal. tank in each wing) 236 gallons optional (230 gallons usable) 292 gallons optional (286 gallons usable)		
Oil Capacity	2.5 gals. (1.5 gals. usable)		
Control Surface Movements	Elevator	Up $29^{\circ} \pm 1^{\circ}$	Down $16^{\circ} \pm 1^{\circ}$
	Elevator tab	Up $11^{\circ} \pm 1.5^{\circ}$	Down $9^{\circ} \pm 1.5^{\circ}$
	Rudder	Left $20^{\circ} \pm 0/-1^{\circ}$	Right $19^{\circ} \pm 0/-1^{\circ}$
	Aileron	Up $19^{\circ} \pm 1^{\circ}$	Down $14^{\circ} \pm 1^{\circ}$
	Flaps	---	Down $28^{\circ} \pm 1.5^{\circ}$
	Aileron droop with full flaps $9^{\circ} \pm 1^{\circ}$		
Serial Nos. Eligible	602-0337 and subsequent		
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following equipment is required: <ul style="list-style-type: none"> a. Operative pre-stall warning system (Dwg. 50130) b. 24 volt electrical system c. Slip indicator d. Fire Extinguisher (Dwg. 10564) 		
Agricultural Dispersal Equipment	The following agricultural dispersal equipment may be installed: None, or any of the following: <ul style="list-style-type: none"> a. Dust spreader (Dwg. 80634 or 80697) b. Standard spray system (Dwg. 80990) c. Micronair spray system (Dwg. 80990) d. Automatic flagger (Dwg. 80612) e. Drift finder smoker (Dwg. 80610) f. Crop Hawk, Micronair, Accuflo flowmeter (Dwg. 80990) g. 48 extra nozzles (Dwg. 80037) h. Night working lights (Dwg. 60956) i. Hopper rinse system (dwg. 80707) 		
Optional Equipment	Conventional fire bomber gate and vent (Dwg. 80343) Air conditioning system (Dwg. 60740) Cockpit heater (Dwg. 51477) Fuel flowmeter (Dwg. 60286) Commercial Band Radio (Dwg. 60436) Vertical speed indicator (Dwg. 51625) Loader Seat (Dwg. 11524) Attitude gyro (Dwg. 51625) Turn coordinator (Dwg. 51625) King COM or NAV/COM radio (Dwg. 60616) Windshield washer (Dwg. 80216) Windshield wiper (Dwg. 60177) King transponder (Dwg. 60434) King audio console (Dwg. 60451) Automatic direction finder (Dwg. 60724)		

Garmin GPS 150 (Dwg. 60619)
 King KLX-135 GPS/COM (Dwg. 60939)
 Directional Gyro (Dwg. 51625)
 ACK ELT (dwg. 60617)
 Strobe, Panel, flap lights (Dwg. 60004)

Certification Basis FAR 23, dated February 1, 1965, through Amendment 23-42, effective February 4, 1991 with the following sections below being defined as appropriate or inappropriate for the special purpose use of agricultural spraying, dusting, and seeding and for the special purpose use of forest and wildlife conservation (fire fighting) per FAR 21.25 (b)(1) and 21.25(b)(2); including the special purpose of Drug Eradication in accordance with FAR 21.25(b)(7) for the application of herbicides.

At Maximum Weight: Defined as the maximum restricted category gross weight the airplane is to be operated and includes at least full fuel, full operating liquids, crew, baggage, and full hopper.

Appropriate FAR 23 Requirements:
 23.21, 23.23, 23.25(a), 23.29,23.49(a)(c), 23.65(c), 23.143, 23.171, 23.173(c), 23.201, 23.231(a), 23.233, 23.235, 23.251, All of Subpart C - Structures, 23.629, 23. 721, 23.723, 23.725, 23.726, 23.727, 23.731, 23.733, 23.1041, 23.1043, 23.1045, 23.1323, 23.1505, 23.1545, 23.1585(a).

At Baseline Weight: Defined as a reference weight not to be less than 75 percent of the Maximum Weight(above). FAR 23 through Amendment 23-42 with the exception of the following requirements deemed inappropriate per FAR 21.25(a)(1).

Inappropriate FAR 23 Requirements:
 23.1, 23.3, 23.45(b)(c)(d)&(e), 23.51, 23.75, 23.221, 23.629(f)(1), 23.777(f)(1),(h)(1)(ii), 23.781(a),(b), 23.867, 23.901(d), 23.954, 23.1303(e), 23.1321(d), 23.1325(b)(3),(e), 23.1351(d)(1), 23.1505(c), 23.1587(a)(5), (a)(6), (a)(7), (a)(8).

Exemption No. 6136 [23.562(d)] 61 knot stall speed
 Equivalent Safety Finding to FAR 23.562, dated September 14, 1992
 Equivalent Safety Finding to FAR 23.677 (a), dated February 4, 2000.

Datum Wing Leading edge

Leveling Screw heads on engine inlet air scoop

Baggage One baggage compartment at (+98.0). Max capacity 60 lbs.

Production Basis PC2SW

Export Eligibility Aircraft will be eligible for issuance of an Export Certificate of Airworthiness subject to compliance with FAR Part 21.

Note 1 FAA approved Airplane Flight Manual dated June 6, 1996, or later FAA approved revision is required. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity location must include the following unusable fuel: 40 lbs. at (+33.0).

Note 2 The following information on placards pertaining to flight and operating limitations must be displayed:

(a) On all canopy doors: RESTRICTED.

(b) Attached to skin of aircraft:

(1) Next to fuel filler caps: FUEL 108 * U.S. GAL. JET A. FUEL TANKS ARE INTERCONNECTED. ALLOW SUFFICIENT TIME FOR FUEL LEVEL TO EQUALIZE BEFORE TOP-OFF OF TANK. NO AEROMATIC FUEL. * Substitute "117" when optional 117 gallon tanks are installed. * Substitute "145" when optional 145 gallon tanks are installed.

- (2) Next to fuel filler caps: CAUTION BEFORE REFUELING AIRCRAFT CONNECT GROUNDING CONNECTION TO LANDING GEAR TOW RING.
 - (3) FOR OPERATION BELOW 40°F ANTI-ICING ADDITIVE PER MIL-I-27686 OR PHILLIPS PFA-55MB MUST BE BLENDED INTO THE AIRCRAFT FUEL IN CONCENTRATIONS NOT LESS THAN 0.06% OR MORE THAN 0.15% BY VOLUME.
 - (4) Next to Oil Filler Cap: OIL TANK 10.0 QTS CAP.
 - (5) Next to pitot static buttons: STATIC AIR - KEEP CLEAN.
 - (6) On side of engine air scoop: LEVELING POINT.
 - (7) On baggage door: 60 POUNDS MAXIMUM BAGGAGE.
 - (8) On top of Hopper Lid: FOR AGRICULTURAL PURPOSES:
 - (9) MAX. HOPPER LOAD 6500 POUNDS.
 - (10) MAX. AIRCRAFT GROSS WT. 12,500 POUNDS
 - (11) Above canopy door handles: OPEN
 - (12) On L/H Canopy door: EMERGENCY EXIT PULL RESCUE
 - (13) Below windshield washer fill: WINDSHIELD WASHER FILL (If Installed)
 - (14) Below Hopper Rinse Fill: HOPPER RINSE TANK FILL (If Installed)
 - (15) In loader seat compartment (if installed): OCCUPANT MUST ATTACH SEAT BELT AND SHOULDER HARNESS AND WEAR A D.O.T. APPROVED OR MIL-SPEC CRASH HELMET
- (c) In full view of pilot:
- (1) THIS AIRPLANE MUST BE OPERATED IN RESTRICTED CATEGORY IN ACCORDANCE WITH THE AIRPLANE FLIGHT MANUAL. NO ACROBATIC MANEUVERS, INCLUDING SPINS. DESIGN MANEUVERING SPEED 162 MPH. MAX FLAP DOWN SPEED 130 MPH. MAX CROSSWIND VELOCITY LANDING 20 MPH. ALT. LOSS FROM STALL 300 FT.
 - (2) THE OPERATION OF THIS AIRPLANE IS LIMITED TO DAY AND NIGHT★ VFR FLIGHT CONDITIONS. FLIGHT INTO KNOWN ICING CONDITIONS IS PROHIBITED.
 - (3) ★Delete the words "AND NIGHT" unless aircraft is equipped with operable lighting package.
 - (4) PUSH STICK FORWARD TO UNLOCK TAILWHEEL.
 - (5) PARK BRAKE OPERATION:
 - (6) ON: DEPRESS PEDALS AND PULL LEVER.
 - (7) OFF: DEPRESS PEDALS.
 - (8) DO NOT OPERATE ENGINE ABOVE 2000 FT/LBS TORQUE ON GROUND RUN UP OR TAIL WILL COME UP. FLIGHT IN VICINITY OF THUNDERSTORMS PROHIBITED. FLIGHT IN VISIBLE MOISTURE BELOW 40°F PROHIBITED. FLIGHT BELOW 0°F PROHIBITED. USE PRIST WHEN OPERATING BELOW 40°F. MAXIMUM OPERATIONAL ALTITUDE 12,500 FT. MSL.

- (9) WARNING: DO NOT MOVE POWER LEVER INTO REVERSE POSITION WITH ENGINE STOPPED OR CONTROLS WILL BE DAMAGED.
- (10) DO NOT OPERATE PUMP ABOVE 160 MPH.
- (11) WARNING: SULFUR DUSTING IS PROHIBITED UNLESS SPECIAL FIRE PREVENTION MEASURES ARE INCORPORATED IN AIRCRAFT.
- (12) Warn light placards: LOW FUEL, FUEL FILTER, CHIP DETECT, AIR FILTER, PROP IN BETA, GENERATOR OUT, when installed, RINSE PUMP.
- (13) Next to airspeed indicator: MANEUVERING SPEED 160 MPH IAS.
- (14) Next to compass card: COMPASS CORRECTION WITH RADIOS OFF.
- (15) On boom pressure gauge: BOOM PRESSURE.
- (16) A D.O.T. APPROVED OR MIL-SPEC CRASH HELMET MUST BE WORN WHEN OPERATING THIS AIRCRAFT.
- (17) NO SMOKING
- (18) On engine control quadrant next to Power Lever: REV
- (19) At the stop detent: IDLE
- (20) On power control Lever: POWER
- (21) On prop control lever: P and on aft end of travel: F
- (22) On canopy doors: DO NOT OPEN DOORS IN FLIGHT. IF DOORS WILL NOT OPEN AFTER OVERTURN KICK OUT WINDOW WITH KNEES OR FEET.
- (23) On engine control quadrant at respective HI and LO idle positions: FLIGHT and RUN. On start control lever: S
- (24) WARNING TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUD, FOG, OR HAZE. STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS.
- (25) On instrument panel: A STALL DURING SKIDDING TURNS WILL CAUSE THE NOSE TO PITCH DOWN SHARPLY AND RESULT IN A SIGNIFICANT LOSS OF ALTITUDE. MAINTAIN COORDINATED FLIGHT AT ALL TIMES
- (26) On instrument panel if loader seat is installed: LOADER SEAT MUST NOT BE OCCUPIED DURING CHEMICAL APPLICATION

NOTE 3 Life Limited airframe parts are listed in the AT-602 Maintenance Manual

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